GABRIEL TARDE

GABRIEL TARDE AND THE RELATIONAL FOUNDATIONS OF AGENCY

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Lay abstract

This thesis explores how we think about responsibility and agency in a world increasingly shaped by artificial intelligence (AI). It draws on the ideas of Gabriel Tarde, a nineteenth-century French thinker who believed that individuals and societies are not fixed entities but constantly evolving networks of relationships. Building on Tarde's philosophy, the thesis shows how modern systems like AI can be understood as part of these networks, acting in ways that traditional legal ideas about responsibility struggle to capture. The work also traces Tarde's intellectual roots back to the philosopher Leibniz and shows how these ideas can help modern society better understand challenges such as assigning responsibility when humans and machines act together.

Abstract

This thesis offers a novel philosophical framework for addressing questions of responsibility and agency in a world increasingly shaped by artificial intelligence (AI). Building on the metaphysics of Gabriel Tarde, a largely overlooked nineteenth-century French thinker, the work challenges conventional dichotomies between individuals and society by presenting a relational ontology rooted in imitation, innovation, and alliance. Through a comprehensive integration of Tarde's *Laws of Imitation* and his *Monadology and Sociology*, the thesis reveals how patterns of coordination and collective organization arise from micro-level interactions among "monads," entities characterized by beliefs and desires. In doing so, it uncovers a theoretical foundation for reconsidering liability frameworks in the context of autonomous AI systems. The study also situates Tarde within a broader intellectual lineage by tracing his connection to Leibniz's monadology, highlighting both continuities and critical departures. By demonstrating that Tarde's relational metaphysics provides greater conceptual clarity and coherence than traditional individualist or holistic models of social order and agency, the thesis makes three primary contributions to knowledge: it revives and reinterprets Tarde's thought for contemporary philosophy and legal theory; it proposes a new metaphysical account of social agency; and it offers practical insights into the reform of legal liability structures in light of emerging technologies, principally AI. The result is a richer understanding of agency as fundamentally relational, providing an innovative lens through which to view the evolving interplay between human and artificial actors.

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List of Abbreviations

AI	Artificial Intelligence
API	Application Programming Interface
Dipl.-Jur.	Diplom-Jurist (a German law degree)
GPLLM	Global Professional Master of Laws (University of Toronto)
M&S	*Monadology and Sociology*, one of Gabriel Tarde's works

Declaration of Academic Achievement
I hereby declare that the research and the results presented in this thesis are my own original work, carried out independently under the supervision of Professor B. Allen. Where collaboration or external sources were involved, these have been properly acknowledged.

Ann Kathrin Gardhouse
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Introduction: Gabriel Tarde's Social Ontology

Artificial intelligence (AI) increasingly challenges a range of traditional conceptual categories, including intelligence, consciousness, society, and agency. For legal scholars, an intensely debated implication of AI's integration into everyday life is whether and how we must reform existing liability frameworks. The answers to these questions often hinge on the extent to which these traditional conceptual categories are expanded or reinterpreted to encompass AI. Drawing on the metaphysics of Gabriel Tarde, my thesis sets out to add a rich yet underexplored philosophical perspective to the conversation about these concepts and to demonstrate how we can solve questions around liability reform on this basis. Since Tarde's work remains largely unknown to Anglophone philosophical audiences, this project also adds to the recent revival Tarde's work is enjoying, first and foremost thanks to Gilles Deleuze and Bruno Latour.[1] In addition, this thesis also seeks to offer the first sustained comparative analysis of Tarde's metaphysics and Leibniz's monadology, a comparison that illuminates the origins, structure, and originality of Tarde's views. Although Tarde himself named Leibniz as a philosophical predecessor, no detailed comparative work currently exists—despite the fact that a clear understanding of Tarde's metaphysical framework depends in many respects on this connection.

Overall, I do not seek to defend Tarde's metaphysics as universally true or fully internally coherent. Rather, I argue that it offers a productive and conceptually robust framework for thinking through specific contemporary challenges—especially those arising in the legal evaluation of AI systems and liability doctrine. Its relational ontology, emphasis on distributed agency, and model of belief and desire as transmissible forces provide unique resources for

[1] For a study connecting Tarde, Latour, Foucault and Deleuze, see Sergio Tonkonoff, *From Tarde to Deleuze and Foucault: The Infinitesimal Revolution* (Springer, 2017).

rethinking responsibility in complex socio-technical systems. In that sense, I adopt a pragmatic—but not purely instrumental—stance: I treat Tarde's metaphysics as a working model whose value lies in its explanatory power and fit for purpose, without claiming metaphysical finality. Where his framework requires supplementation or reinterpretation, I attempt to make those moves explicitly, while remaining committed to the core insight that social and technical actors alike are constituted through relations of imitation, possession, and belief-desire dynamics.

Before narrowing in on Tarde's theory of imitation in Chapter I, I first introduce the reader to his life and work by comparing him with more familiar thinkers and controversies. In particular, I focus on the debate between individualism and holism in which Tarde and his contemporary intellectual adversary Émile Durkheim were key figures. I show that he fits neither of these two categories. Instead of being somewhere on the spectrum between the two, he breaks out of the polarity they form by challenging the dominant understanding of what individuals and societies are. Thus, I explain and expand on Tarde's thought in its own right, without worrying about how to fit it into the categories of current social science.

As I will show, Tarde's imitation theory nicely explains the mechanisms by which innovations spread throughout society, how innovations arise, and how we can use this theory to attribute liability in the context of AI. Hand in hand with imitation and innovation go complementary mechanisms of alliances and opposition among beliefs and desires, these being the means by which innovations are introduced into society and by which some of them manage to prevail. Tarde establishes this social ontology relying on familiar concepts of individual and society, though to really understand his theory it is necessary to engage with his monadology, which at first glance and paradoxically eliminates individuals and societies altogether, replacing them with monads and rays of imitation, concepts I thoroughly examine throughout this thesis.

Drawing on Tarde's *Laws of Imitation*, which sociologists have extensively studied,[2] I provide an overview of the laws of imitation in Chapter I with the goal subsequently, in Chapter II, to integrate the theory of imitation with Tarde's *Monadology and Sociology* (*M&S*), the main work in which Tarde develops his metaphysics and which has thus far received only sparse attention. [3] I show how his imitation theory explains the mechanism by which a fundamental diversity of monads can result in apparent order on the aggregate level. Explaining the imitation theory in terms of Tarde's monadology leads directly to the need for a deeper exploration of the metaphysical framework that underpins it—particularly its debts to, and departures from, Leibniz. This is the task of Chapters III to V, in which I return to the father of monads, Leibniz, and trace a line back to Tarde's monadology, shedding light on commonalities and differences with Leibniz, as well as interpretative difficulties in Tarde's work. These chapters clarify the distinctive features of Tarde's metaphysics and demonstrate how the comparison with Leibniz helps us assess both the originality and coherence (or incoherence) of Tarde's system.

Having integrated Tarde's monadology and imitation theory, I use the final chapter to demonstrate that his relational metaphysics offers valuable insights for contemporary questions of agency and accountability. I examine current liability frameworks and argue that they implicitly rely on Durkheimian and other social theories that fail coherently to support the kind of liability reforms required in the face of increasingly autonomous AI. Finally, I discuss emerging liability reform proposals which draw on Bruno Latour's Actor-Network Theory and

[2] For an overview of contemporary work on Tarde's sociology, see for example Anthony King, "Gabriel Tarde and Contemporary Social Theory," *Sociological Theory* 34, no. 1 (2016): 46–48, JSTOR. See also Robert Leroux, ed., *The Anthem Companion to Gabriel Tarde* (Anthem Press, 2018). Sergio Tonkonoff, "A New Social Physic: The Sociology of Gabriel Tarde and Its Legacy," *Current Sociology* 61, no. 3 (2013): 267–82. and Christian Borch, "Urban Imitations: Tarde's Sociology Revisited," *Theory, Culture & Society* 22, no. 3 (2005): 81–100.

[3] Gabriel Tarde, *Monadology and Sociology*, ed. and trans. Theo Lorenc (re.press, 2012), afterword by Theo Lorenc, 72.

show how introducing Latour's ancestor Tarde can add further conceptual clarity and metaphysical rigor to these novel approaches. While this final chapter illustrates one powerful application of Tarde's metaphysics, it is not the sole end to which the earlier chapters are directed. The Leibniz-Tarde comparison stands as a necessary foundation in its own right, helping to secure a more precise and philosophically robust account of Tarde's contribution to contemporary metaphysics.

1) Tarde's Life and Work[4]

Jean-Gabriel Tarde was born in 1843 in Sarlat, a small town in France east of Bordeaux. Until 1789, his family's aristocratic past was manifested in their name "de Tarde," which Tarde never used in his writings, despite the particle being restored in 1885. Following the family tradition, Tarde pursued a career in law after initially dabbling in literature and briefly considering mathematics after graduating from his Jesuit-run school at the age of 17. While he served as a judge in and around Sarlat for over 25 years, his interest in mathematics never ceased. The combination of professional expertise as a judge in criminal law and his mathematical affinities led to his nomination as director of criminal statistics at the Ministry of Justice in Paris in 1894. Once established in Paris, he was soon appointed a chair in the School of Political Sciences, and in 1900 he became a professor at the prestigious Collège de France, an institution that is free and open to all though it does not grant academic degrees. Faculty members have included such figures as Henri Bergson and Michel Foucault, the former Tarde

[4] On Tarde's life see Gabriel Tarde, *Gabriel Tarde: Introduction et Pages Choisies Par Ses Fils* (Louis Michaud, 1909). Gabriel Tarde, *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), Introduction. A thorough study of Tarde's many writings containing useful information on numbers of publications, difficulties with publishers and Tarde's reception among contemporaries as well as in later years can be found in Ian Lubek, "Forgotten Social Psychologies: Gabriel Tarde's Formulations," in *The Anthem Companion to Gabriel Tarde*, ed. Robert Leroux (Anthem Press, 2018). For the English reader, the prefaces to English translations of several of Tarde's books and collections of articles provide an overview of Tarde's personal and professional life and the intellectual inspiration from which he drew for his own works.

was personally acquainted with, and they competed for the chair of the Collège in 1900. Tarde was further elected to the Institut de France as a member of the Academy of Moral and Political Sciences.

After giving up his literary endeavours, Tarde's first publications made important contributions to criminology. However, he shifted his academic interest to sociology and stopped publishing on criminology after 1890, the year in which his last major criminological work, *Penal Philosophy*, appeared. This was also the year that the first edition of his most famous book, *Laws of Imitation*, was published. At that time, sociology was not taught in Paris as part of the official university curriculum, although the topic was subject to enormous public attention and Tarde was highly sought after by newly established teaching and research institutions to lecture on the work he had published in that area. By 1900, he held virtually every leading position that was available to a social scientist in France outside the university system. For the last four years of his life, he lectured at the Collège de France on topics ranging from opinion and the public to the social-psychological foundations of economics to what he called inter-mental psychology. He died in 1904 at the age of 61. For the longest time it appeared as if Tarde's works had died with him, yet they began enjoying an enthusiastic revival led first and foremost by Deleuze and Latour—a revival that continues today through the work of contemporary scholars engaging with relational and posthumanist social theory.[5]

If today social scientists know of Tarde, it is as the defeated opponent of Émile Durkheim, the uncontested champion of holism in sociology. As Durkheim's opponent, Tarde was falsely, as I argue, branded an individualist and not a very good one at that. The two adversaries engaged in intellectual duels in scholarly journals for years, each spilling much ink to advance their

[5] Sergio Tonkonoff, *Reintroducing Gabriel Tarde* (Routledge, 2024).

respective positions on matters regarding the social sciences. From 1902 to 1904, Tarde and Durkheim both resided in Paris and in 1903 they convened a meeting to defend their respective views. While no record of this famous debate exists other than a brief overview, both authors' positions were widely published, and their opposing stands can be reconstructed from their works, particularly their exchanges in academic journals prior to the debate. [6] Much of sociology thereafter has developed against the background of the great opposition of individualism and holism. Given Tarde's role in demarcating these two stances, an understanding of holism and individualism will bring us a step closer to understanding Tarde's own approach. But before describing Durkheim's holism, it will be necessary to briefly introduce Tarde's understanding of the concept of imitation, as Durkheim commonly refers to it himself.

Central to Tarde's theory, and in direct contrast with Durkheim's social holism, is the idea that what we call society is nothing more than a dense and dynamic web of imitative relations among individuals. For Tarde, individuals strive to have others imitate their beliefs and desires—not just behaviors—and these imitative relations and the resulting conflicts among diverging beliefs and desires are what constitute society itself. Rather than positing society as a *sui generis* social force, Tarde offers a bottom-up metaphysics of the social, rooted in the micro-dynamics of imitation. Note that I introduce additional metaphysical rigor later, which relativizes the role and status of individuals. But this formulation suffices for now to introduce Durkheim's holism in contrast with Tarde's theory.

[6] The overview is available to English readers in Gabriel Tarde, "A Debate with Emile Durkheim," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010). A reconstruction has been attempted by Latour, Karsenti, and Schaffer. The debate was acted out by its creators in 2008 at McCrum Lecture Theatre, Corpus Christi College, Cambridge, UK, as part of the conference *Tarde/Durkheim: trajectories of the social*. A podcast video of the debate is available at http://www.crassh.cam.ac.uk/events/47/. A shortened English version is available in Matei Candea, ed., *The Social after Gabriel Tarde: Debates and Assessments*, Culture, Economy and the Social (Routledge, 2010), 27–42.

2) Holism

Holism, certainly in Durkheim's version, defines society as an entity *sui generis*, separate from the individual domain. Society is ontologically and analytically irreducible, that is, it cannot be explained in terms of individual psychology. While a society is composed of its individual members, it exhibits characteristics, or "social facts," of its own that do not apply to the individual members.[7] For Durkheim, a custom, a common belief, or practice is not followed because individuals see how others behave and adjust their own behaviour accordingly, but because of a collective pressure to maintain this way of behaving.[8] This pressure is a social force and not an instinct to imitate that would induce individuals to follow the example of others. In Durkheim's words: "*the determining cause of a social fact should be sought among the social facts preceding it and not among the states of the individual consciousness*."[9]

The beliefs, tendencies, or practices of a *collective* of individuals are social facts that interact and thereby constitute further social facts, and may even run contrary to the form that belief, tendency, or practice may take among individuals. Durkheim concedes that the individual manifestation of social facts could be regarded as having a social aspect because these manifestations reproduce the social fact that is the collective model.[10] However, given that the psychic and organic constitution of the individual influences the individual manifestation too, they cannot be called objects of sociological analysis in a strict sense. A belief, tendency or practice is only collective if it is general, and it is not general because it is manifested in each

[7] The reader may wish to see Durkheim's definition of society at this point. However, Durkheim left this key term notoriously undefined, showcasing uncertainty and unclarity in this regard. See Émile Durkheim, *The Rules of Sociological Method and Selected Texts on Sociology and Its Method*, ed. Steven Lukes, trans. W. D Halls (Palgrave Macmillan, 2013), ix, n. 2.
[8] Émile Durkheim, *Suicide: A Study in Sociology*, trans. John A. Spaulding and George Simpson (Routledge, 2002), 78.
[9] Durkheim, *Rules*, 90.
[10] Ibid., 25.

part; rather, it is in each part because it is in the whole.[11] Individual beliefs, tendencies, and dispositions are not social, since they depend on an individual's psychic and organic constitution, which varies greatly and cannot be subjected to laws, rendering them inapt as subjects of a scientific sociology as Durkheim conceives of it. Fortunately, statistics allow the display of a social phenomenon, say, the suicide rate, as a state of the collective mind, cancelling the individual circumstances that may have played a role in its production. In this way, Durkheim maintains, social facts exist in a strict sense only "when stripped of all extraneous elements," such as the circumstances individuals felt contributed to their decision to commit suicide.[12]

The question then is how the parts, the individuals without whom there would be no society, relate to the whole, to society. Durkheim explains:

> Yet since society comprises only individuals it seems in accordance with common sense that social life can have no other substratum than the individual consciousness. Otherwise it would seem suspended in the air, floating in the void. Yet what is so readily deemed unacceptable for social facts is freely admitted for other domains of nature. Whenever elements of any kind combine, by virtue of this combination they give rise to new phenomena. One is therefore forced to conceive of these phenomena as residing, not in the elements, but in the entity formed by the union of these elements.[13]

This passage well expresses Durkheim's central thesis that social facts are external to individuals—that is, they exist independently of individual consciousness and exert coercive power over individual behavior.

A second characteristic of Durkheim's social facts is that they causally impact individual behaviour in their own right, that is, without requiring individual actions or Tarde's imitative instincts to explain the effects. Take the suicide rate as an example. An individual who commits suicide may have an "organic-psychic disposition,"[14] e.g., mental illness, or be led to suicide by

[11] Ibid.
[12] Ibid., 24.
[13] Ibid., 10.
[14] Durkheim, *Suicide*, 3.

"the nature of the physical environment . . . [e. g.,] climate, temperature etc." However, Durkheim denies these factors causal force because he is unable to find a stable relation between individual misfortune or the physical environment and the suicide rate.[15]

When instead he looks to certain states of the social environment, he finds a direct relation to suicide stable enough that he calls it a law. These states of the social environment are "currents of egoism, altruism or anomy running through society."[16] For example, egoism contributes to the suicide rate because when individuals are strongly integrated into a society suicide rates are low, while the more the group weakens the more the individuals are driven into egoism and made to depend upon themselves for rules of conduct that guide their behaviour,[17] which Durkheim thinks raises the likelihood of suicide.[18] In other words, suicide, for Durkheim, is a social ill that is caused by the coercive force of a collectively felt excess of egoism, altruism or anomy, while egoism, altruism, and anomy, present in everyone and relatively harmless when they offset each other, can become unbalanced as a result of national or economic crises or similar disruptive events.[19]

Commenting on the stability of the suicide rate in the absence of any changes in society, Durkheim dismisses the role of imitation:

> This stability does not exist because the state of mind which generates suicide is found through some chance in a definite number of individuals who transmit it, for no recognizable reason, to an equal number who will imitate the act. It exists because the impersonal causes which gave it birth and which sustain it are the same. It is because nothing has occurred to modify either the grouping of the social units or the nature of their concurrence. The actions and reactions interchanged among them therefore remain the same; and so the ideas and feelings springing from them cannot vary.[20]

[15] Ibid., 261.
[16] Ibid., 264.
[17] Ibid., 167–68.
[18] Ibid., 285.
[19] Ibid., 286.
[20] Ibid.

And in a footnote explicitly mentioning Tarde, he says, "[I]t seems clearly to follow that imitation does not always express, indeed never expresses, what is essential and characteristic in the social fact. Doubtless every social fact is imitated […], but this is because it is social, i.e., obligatory."[21]

While providing interesting insights into the causes of suicide, insights which Tarde, as it happens, shared to a significant extent,[22] Durkheim's reasoning always remains on the level of the social without taking the difficult step of providing an explanation for how the social force acting upon the individual came about in the first place.[23] Durkheim's successors have not resolved this shortcoming; indeed, no holist explanation has succeeded in demystifying the *sui generis* entity that allegedly comes into existence upon the assemblage of individuals. Taking recourse to imitation as the mechanism by means of which social bonds are established and social trends spread, on the other hand, provides an explanation that, while complex and perhaps daring, is free of any mystical element that escapes comprehension.

3) Individualism

The versions of individualist social theory by J. S. Mill and Karl R. Popper are examples on opposite ends of the spectrum of individualist theories. Mill's individualism, often called psychological reductionism, was explicitly rejected by Tarde,[24] who nevertheless was himself labelled a psychological reductionist.[25] Popper, too, fiercely rejected Mill's psychological reductionism, though for reasons that differ from Tarde's. Popper thought that Mill's effort to

[21] Durkheim, *Rules*, 27 n. 3.
[22] Gabriel Tarde, "Criminal Youth," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 15.
[23] Gabriel Tarde, *Social Laws: An Outline of Sociology*, trans. Howard Crosby Warren, with James Mark Baldwin (Bibliolife, 2009), 26.
[24] Ibid., 20.
[25] See for example Lars Udehn, "The Changing Face of Methodological Individualism," *Annual Review of Sociology* 28 (2002): 485 n. 6, JSTOR.

reduce social facts to individual psychology was bound to fail because Mill could not account for the influence social institutions have on individual psychology. Popper thus serves as an example of an individualist who converges toward holism, as is typical in the development of individualism throughout the twentieth century.[26] This is true in reverse for holism. One example is Pettit's holistic individualism, which maintains along with individualists that "the status ascribed to individual agents in our intentional psychology is [not] compromised by aggregate social regularities," yet concurs with holists "that individual agents non-causally depend on their social relations with one another for some of their distinctive capacities."[27] As I show, Tarde's approach provides a social ontology that overcomes the explanatory limitations of Mill's reductive psychologism while avoiding the inconsistent convergence with holism of which Popper has been accused.

Individualism generally claims that social phenomena must be explained as results of aggregated individual actions. Mill insisted that social phenomena can be reduced to human nature and must be explained by recourse to psychological laws.[28] For Mill, humans obey laws of human nature, whether they are considered as individuals or aggregated in society. Note that Mill's laws of human nature are "intracerebral," to use Tarde's terminology,[29] meaning that Mill founds his sociology on psychological laws as they pertain to singular individual persons.

> The laws of the phenomena of society are, and can be, nothing but the laws of the actions and passions of human beings united together in the social state. Men, however, in a state of society, are still men; their actions and passions are obedient to the laws of individual human nature. Men are not, when brought together, converted into another kind of substance, with different properties […]. Human beings in society have no properties but

[26] Ibid., 498.
[27] See, for example, Philip Pettit, *The Common Mind. An Essay on Psychology, Society, and Politics* (Oxford University Press, 1993), 119. In this passage he defends holistic individualism.
[28] John Stuart Mill, *A System of Logic, Ratiocinative and Inductive; Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation* (Longmans, Green, 2008).
[29] Tarde, *Social Laws*, 20.

> those which are derived from, and may be resolved into, the laws of the nature of individual man.[30]

This position led to Mill being described as a psychological reductionist. It must be noted, however, that Mill provides in his theory for other factors that influence human behaviour and play a role in explaining it. For instance, other factors he considers are the external circumstances that act upon an individual. "For every individual is surrounded by circumstances different from those of every other individual; every nation or generation of mankind from every other nation or generation; and none of these differences are without their influence in forming a different type of character."[31]

The external circumstances he refers to are not limited to the physical environment, as the reference to different nations makes clear. It is therefore an oversimplification for the critics to claim that Mill reduces social facts to psychology. He at least implicitly leaves room for social institutions to influence human behaviour and is therefore not quite as far from holism as some have claimed.[32] Such external circumstances indeed play a significant role in Mill's explanatory framework: "All phenomena of society are phenomena of human nature, *generated by the action of outward circumstances upon masses of human beings*: and if, therefore, the phenomena of human thought, feeling, and action, are subject to fixed laws, the phenomena of society cannot but conform to fixed laws, the consequence of the preceding."[33]

Nevertheless, Mill accords these external circumstances no special attention, despite the apparently quite important role they play in his theory. The reason is presumably because

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[30] Mill, *A System of Logic*, Book VII, Ch. VII, §1.
[31] Ibid., Book VI, Ch. V, § 2.,
[32] Udehn, "The Changing Face of Methodological Individualism," 482. In support for the position that Mill is less reductionist that he is portrayed, for example, by Popper, see Michel S. Zouboulakis, "John Stuart Mill's Institutional Individualism," *History of Economic Ideas* 10, no. 3 (2002): 29–45, JSTOR.
[33] Mill, *A System of Logic*, Book VI, Ch. VI, §2, emphasis added.

outward circumstances differ significantly, as he concedes, and they therefore escape systemisation. In other words, Mill attempts to establish the psychological laws that explain how humans act if we also know the external circumstances, which are always different and need to be accounted for empirically as they do not follow clear laws.

Karl Popper is one of the philosophers who characterizes Mill as a psychological reductionist and who thinks of his own theory as an alternative to Mill's, even though he overlooks how Mill's theory allows for what Popper explicitly demands, namely that social facts be included in the explanation of other social facts.

Popper is probably the best-known individualist among philosophers of the social sciences. Yet his version of individualism represents a significant move towards, if not a blurring with, holism, as Popper constructs his social science methodology from two incompatible components, namely individualism and institutionalism, or the claim that individual actions cannot be explained without referring to social institutions. Popper thinks this institutional individualism differs from Mill's version in so far as institutions are no longer to be explained only by individual actions or attitudes (the explanandum), but are rather among the elements that do the explaining (the explanans). The reason Popper felt the need to reject Mill's psychologism is provided in Marx's words, which Popper cites in this connection: "It is not the consciousness of man that determines his existence—rather, it is his social existence that determines his consciousness."[34] The proximity to Durkheim's position should be obvious. While Mill's theory, and certainly that of other individualists, allows that social institutions have an impact on the individual's state of mind and thereby play an indirect role in explaining social facts, Marx and following him Popper claim that since motives for action are influenced by agents' social

[34] Karl R. Popper, *The Open Society and Its Enemies*, with Alan Ryan and E. H. Gombrich (Princeton University Press, 2013), 302.

environment, an analysis of the psychology of the individual presupposes society's existence.[35] In other words, there is no human nature that is not already social.[36] On this point, Tarde and Popper would have agreed.

Popper explicitly agrees with psychologism, as he understands it, insofar as it rejects holism and "insists that the 'behaviour' and the 'actions' of collectives, such as states or social groups, must be reduced to the behaviour and to the actions of human individuals. But the belief that the choice of such an individualistic method implies the choice of a psychological method is mistaken."[37]

His argument against psychological reductionism is twofold. First, Popper believes that if Mill wants to reduce social facts to psychological facts, he will be forced to go back to the origin of society, because human actions originally driven by natural instincts quickly become social laws and institutions as subsequent generations assign a normative value to such actions. Once that occurs, it is no longer instinct or human nature that drives the action but a newly instituted norm, an undoubtedly social fact.[38] He holds that ideas about the origin of society are invariably mythical and not suitable for a social science.

Popper's second argument against psychological reductionism is that social developments are not results of conscious desires or actions that lead in any straightforward way to the desired social fact. Even in instances where a social development is intentionally brought about, it rarely turns out the way it was intended, as Popper believes that social developments are typically the unintended consequences of human action. Since the main task of social science is to analyse and

[35] Ibid.
[36] Ibid., 305.
[37] Ibid., 303, 310.
[38] Ibid., 304.

foresee, as much as possible, social developments,[39] taking recourse to human nature as it may have existed at the origin of society, if there was such a thing, is inadequate, even impossible, because, as explained above, observed human nature is influenced through and through by the social environment.[40]

What Popper fails to explain is how this institutionalism is compatible with his rejection of holism and his own individualism, that is, the claim that the actions of collectives are reducible to those of human individuals, while at the same time avoiding the pitfalls into which he claims Mill's reductive psychologism fell. As a consequence, no doubt, Popper's adherence to individualism fades and eventually disappears from his works altogether with institutionalism taking the center stage.[41]

To conclude, Mill fails to account for the influence society has on individual psychology and attempts to establish purely psychological laws that can explain the actions of humans (assuming one knows the external circumstances), which laws he claims remain the same whether the individual acts in a social setting or not. Popper, on the other hand, realizes that social facts influence human action considerably, yet he fails to reconcile this with his claim that the behaviour of collectives can be reduced to the actions of individuals alone and he opens himself to the same criticism as holists who are not able to explain what a social fact is if not the direct result of individual action.

Neither Mill nor Popper pay much attention to imitation or generally to the question of how trends spread through society. While not a unique feature of Tarde's theory, he certainly places

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[39] Ibid., 307.

[40] Karl R. Popper, *The Myth of the Framework: In Defence of Science and Rationality*, ed. Mark Amadeus Notturno (Routledge, 1994), 167.

[41] For a detailed analysis of Popper's individualism throughout his career as well as its irreconcilability with Popper's institutionalism, see Lars Udehn, *Methodological Individualism: Background, History, and Meaning* (Routledge, 2001), 200–227.

unique emphasis on the phenomenon of imitation, an emphasis that holds the key to a social ontology that elegantly unites individuals and society, avoiding the dichotomy that causes the difficulties we have seen to plague holists and individualists alike.

4) Tardeanism

Tarde developed a social ontology that was radically different from that of either Mill or Durkheim. In what commentators like to describe as his most "daring" work, *M&S*, which provides the metaphysical underpinning of Tarde's social ontology, he eliminates the distinction between individuals and societies and instead postulates that everything, quite literally, is a society, including organic and inorganic bodies.[42] It would be inappropriate to explain Tarde's ontology in detail at this point, so I offer no more than a preliminary formulation that allows us to understand Tarde's criticism of Mill's individualism and Durkheim's holism, reserving my fuller account for a later chapter.

As a first step, let us turn to Tarde's conception of individuals. For him, individual people can be understood from two different perspectives, first as physical organisms, and secondly as elements of aggregates, namely, the societies they form. As physical organisms, people are composed of numerous monads, with one guiding monad in charge, which Tarde identifies with the composed individual's consciousness.[43] The idea of introducing monads as the key element of all things is, of course, borrowed from Leibniz,[44] yet with important differences.[45] For Tarde, every monad has a soul endowed with two faculties, belief and desire, neither of which

[42] Tarde, *Monadology and Sociology*, 28.
[43] Ibid., 18.
[44] Gottfried Wilhelm Freiherr von Leibniz, *The Monadology*, trans. Robert Latta (Alex Catalogue, 1898), Sections 67 and 70.
[45] Tarde, *Monadology and Sociology*, 26. Tarde's monads differ from Leibniz's in the absence of God and pre-established harmony, and the fact that Tarde's monads can be influenced externally, while Leibniz's monads have "no windows" connecting them to other monads.

necessarily requires consciousness or even sensation, as belief and desire are psychological quantities, that is, units in which truth and utility can be measured[46]—though not in the utilitarian sense of moral value, but in terms of their social force and relational adaptability within a system of exchanges. For Tarde, belief and desire combine with qualitative sensations only in some cases.[47] This allows for cells and chemical molecules as well as people or other animals to be believing and desiring monads without having to attribute consciousness to them.

What is more, Tarde dismisses mind-matter dualism as well as the distinction between nature and the social realm.[48] His reasoning is, in brief, as follows. A living organism cannot be composed of elements that are not in some way living, much as a machine cannot transform the essence of the raw materials of which it is composed.[49] Therefore, the raw materials that compose a living body, i.e., the chemical elements and on a higher level of explanation the cells, must themselves contain vital forces, which Tarde identifies as beliefs and desires. As I will explain in greater detail later, we can understand desire as a monad's tendency toward teleological movement—an impulse to impose its beliefs on other monads in order to generate consensus, thereby establishing its beliefs as what is regarded as truth.

Let me clarify from the outset, however, that Tarde also often uses desire in its ordinary sense, as emotion or affective state. This is not in contradiction to the technical usage of the term in his metaphysical framework. Rather, emotional desires are expressions of metaphysical desire as it appears in the domain of human consciousness and social behaviour. For example, if an

[46] Gabriel Tarde, "Quantification and Social Indicators," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 192.
[47] Tarde, *Monadology and Sociology*, 18. See also Gabriel Tarde, "Belief and Desire," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 164–66. Note that Tarde admits his inability to define what belief and desire are (166).
[48] Tarde, *Monadology and Sociology*, 15–16.
[49] Ibid., 20.

artist sees a groundbreaking painting and feels admiration, that emotion may lead her to imitate the style or aspire to surpass it. The belief is that the painting is meaningful or powerful, and the desire is to act upon that belief, to embody it, spread it, or modify it. At the metaphysical level, this is desire in Tarde's technical sense: the striving to propagate belief and influence others to imitate it. That said, Tarde does not necessarily keep these two domains, the metaphysical and the human or social, cleanly delineated.

Aside from being composites, individuals are also the composing elements of aggregates. Monads are therefore the true elements of all things, inorganic, organic, and social. Tarde characterises them as non-corporeal centres of force that set out to conquer as many other monads as they can bring under their influence, and that are stopped on this path only by the ambition of competing monads. Tarde illustrates this as follows: "The child is born a despot: like an African king, as far as he is concerned, the other exists only to serve him. Years of punishment and educational constriction are required to cure him of this error. We may say that all laws and rules, chemical discipline, vital discipline, or social discipline, are so many additional brakes intended to restrain this omnivorous appetite of every being."[50]

The mechanism by which a monad attempts to achieve domination is sometimes force but more often "gentle persuasion and suggestion," utilized to get all the other monads to buy into its ideas, theories, arguments, or ways of being.[51] By setting an example, the monad makes use of the predisposition of every social being to imitate, using the monads under its influence as conduits to further expand this influence. However, every monad that imitates the example of another often adds its own twist, usually a minimal innovation, to the perceived example. But what is it exactly that is being imitated? It is the monad's beliefs and desires, Tarde maintains, as

[50] Ibid., 60.
[51] Tarde, *Social Laws*, 90.

they have the essential characteristic, in sharp contrast to sensations, to be the same (understood in a special way that I explain in Chapter I) from individual to individual, which allows them to be transmitted from one to the next.[52] In brief, the characteristic common to everyone's beliefs and desires is that they have two opposing signs, negation and affirmation. We can affirm or deny a belief or desire or disdain an object,[53] each in varying degrees of strength.[54]

What remains to be explained is how a monad decides which examples, among the countless ones to which it is constantly exposed, it chooses to imitate. Tarde dedicated his book *Laws of Imitation* to answering this question. For now, suffice it to say it depends on many factors, such as the prestige of the imitated monad and how well the example suits the imitating monad's prior beliefs and desires. Every monad's beliefs and desires are a unique combination which that particular monad decides to incorporate. Such examples may have reached this monad from its ancestors, from family members or friends, from strangers, or from all across the world conveyed by various forms of media. Every example the monad imitates has also been formed in various ways along an endless chain of imitating transmissions from monad to monad through space and time. In this manner, all monads form a tight network, or perhaps better, a force field, in which they imitate each other, try to induce others to imitate them, and where the attributes they offer for imitation are themselves imitated, sometimes slightly modified beliefs and desires.

Tarde describes a monad that successfully dominates other monads in this way as *possessing* those other monads. In his last bold assertion in *M&S*, he announces that metaphysical undertakings based on the supposedly fundamental fact of being would be better based on having. "Instead of the famous *cogito ergo sum*, I would prefer to say: *I desire, I believe,*

[52] Tarde, "Belief and Desire," 172.
[53] Tarde, *Social Laws*, 47–48.
[54] Tarde, "Belief and Desire," 170.

therefore I have."[55] Having implies possession and thus relation, and relations, Tarde believes, rather than any sort of substance constitute the fundamental fabric of reality. This, then, is how Tarde arrives at his definition of society: "It could be defined, from our point of view, as each individual's reciprocal possession, in many highly varied forms, of every other."[56] We can now see, albeit still only vaguely, how Tarde constructs his ontology with the *relation between* constituting elements as the building block. This enables us to better understand Tarde's criticism of Mill, who focussed on intra-individual psychology rather than inter-individual psychology to explain social facts.

Because belief and desire do not differ from individual to individual, as alluded to above and further explained in Chapter I, we can aggregate people's beliefs and desires, making it legitimate to speak of the beliefs or desires of aggregates and, once they are institutionalized, of public opinion and general will,[57] though in doing so we merely change the perspective without ascribing to the aggregate any characteristics that do not stem from those of the individual constituents.[58] The reverse is not equally true, however. Individuals are part of many different and constantly changing aggregates, lending only some of their aspects to a given composite.[59] Thus, for Tarde, the individual is infinitely more complex than the whole it forms together with others, which explains why Tarde cannot convincingly be called a reductionist. It is a curious reductionism where the parts are more complex than the whole.

[55] Tarde, *Monadology and Sociology*, 52.
[56] Ibid., 51.
[57] Gabriel Tarde, "Opinion and Conversation," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 242.
[58] Gabriel Tarde, "Sociology, Social Psychology, and Sociologism," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 103.
[59] Tarde, *Monadology and Sociology*, 47.

Lastly, I wish to clarify one point in Tarde's criticism of Durkheim. When Durkheim argues that emergent, *sui generis* characteristics of wholes are perfectly acceptable, as for example in organisms with characteristics not shared with their constitutive cells, and that we should therefore also allow some kind of emergence in social ontology,[60] Tarde maintains that due to our limited access to the constituting elements of the organisms that compose them, we must revert to imprecise explanations of the whole. When we compare human associations with associations of other monads such as cells, they are special only insofar as we have access to the singular monads composing the social network of which they are parts, whereas the objects of other sciences necessarily escape our direct grasp, permitting only an understanding in the abstract, from afar, where the components appear to be homogeneous, nomological, and forming a structure.[61] In human associations, we know firsthand that there is no such thing as a collective being spontaneously coming into existence once a group of individuals associates.[62] We have never observed anything but individual interactions, that is, unilateral and mutual imitations, and Tarde maintains, in clear contrast to Durkheim's holism, that conjuring up an emergent entity that imposes obligations upon individuals is utterly unscientific.[63] Tarde posits these imitations as the fundamental social fact because human acts that are imitated or that are imitations of others' acts are social in nature and once multiplied billions of times generate trends, fashion, customs, laws, and other social structures. [64] Human societies exist, then, because individuals imitate each other.

[60] Durkheim, *Rules*, 10.
[61] Tarde, *Monadology and Sociology*, 39.
[62] Ibid., 35–36.
[63] Tarde, "Sociology, Social Psychology, and Sociologism," 102.
[64] Ibid., 80.

In the chapters that follow, I begin by reconstructing Tarde's theory of imitation and its implications for innovation, before turning to his monadology and its metaphysical underpinnings. I then compare Tarde's system to that of Leibniz, clarifying its internal tensions and conceptual resources. Finally, I apply this metaphysical framework to contemporary legal debates around AI liability, showing how Tarde's relational ontology can illuminate agency, responsibility, and causation.

Chapter I: Imitation and Invention on the Macro-Level

In order to use Tarde's work as a foundation for contemporary discussions of liability reform, especially in response to increasingly autonomous AI systems, I first clarify the connection between his theory of imitation and his monadology—a link Tarde himself left underexplored. While Tarde never explicitly integrates his sociology of imitation with the metaphysical framework of his monadology, this gap should not be taken as evidence of inconsistency. Even after *Monadology and Sociology* had been published, he spoke only carefully about the metaphysical implications of his sociological reasoning, suggesting in debates with Durkheim that a "remodeling of universal science under the inspiration of sociology" might lead us to choose between "the ontological phantasmagoria of Mr. Durkheim" and a "neo-monadological hypothesis" of his own, if we "dared to push this idea to its extreme." Yet he explicitly declines to "venture on such metaphysical flights," preferring instead "to stay on the shores of fact."[1] I take this restraint as strategic rather than skeptical: the monadology underpins Tarde's sociology, even if it remains largely implicit in his sociological works—likely out of concern that overt metaphysical speculation might, particularly in this context, draw criticism for lacking empirical rigor.

My aim is to draw out this conceptual alignment—not to reconstruct a system Tarde avoided, but to extend the latent metaphysical logic of his sociological work into contemporary debates. By enriching his theory of imitation with his distinctive metaphysical account of individuals and societies as monads, we gain a conceptually unified philosophical framework that offers valuable

[1] Ibid., 103–4.

insights into the nature of agency, causality, and accountability in complex socio-technical systems.

In this first chapter, I set out Tarde's theory of imitation, of which invention is an essential part. I rely on his sociological work, for the most part, which uses the concepts of individuals and societies as commonly understood. In this context, individuals are separate entities and societies are a form of social order. I refer to this level of imitation and invention as the macro-level, in contrast to the perspective taken in Chapter II, where I discuss imitation and invention on the micro-level, the level on which individuals and societies are dissolved into infinitely small agents.

Tarde's explanation of how imitation and invention work on the micro-level are scarce. Hence, in order to merge his theory of imitation and his metaphysics, it is necessary first to set out the theory of imitation on the macro-level and then translate it into the concepts used in his metaphysical work, his monadology.

1) Imitation on the macro-level

Before diving deeper into the question of what it is that is primarily imitated, namely beliefs and desires, I start with a definition of imitation as provided in Tarde's most famous sociological work and a brief account of why imitation plays an important role for him. In the preface to the second edition of *Laws of Imitation* Tarde provides a definition of imitation: "The action at a distance of one mind upon another, and […] action which consists of a quasi-photographic reproduction of a cerebral image upon the sensitive plate of another brain."[2] Imitation can be conscious or unconscious, passive or active, and a negative image is as much an imitation of the

[2] Gabriel Tarde, *The Laws of Imitation*, 2nd ed., trans. Elsie Clews Parsons, with Frankklin H. Giddings (Henry Holt, 1903), xiv.

model as a positive image.[3] In other words, counter-imitation, that is, the imitation of the opposite of the example, is also part of Tarde's definition of imitation.

Note that imitation does not primarily mean imitation of observed behaviour. This is not to say that imitation of beliefs and desires happens without reference to behavior. Rather, behavior serves as a medium or sign through which belief and desire become perceptible but it is not the object of imitation itself. For Tarde, individuals are not merely copying gestures or actions, but responding to the perceived meaning, intent, or evaluative orientation embedded in those actions. He maintains that only in relatively rare cases do individuals imitate behaviours expressive of beliefs and desires.[4] More commonly, imitation occurs from the inside to the outside, meaning that the beliefs and desires of another person are themselves imitated before their external manifestations are.[5]

On the macro-level, it is through imitation that an aggregate of individuals becomes a "social quantity."[6] He says:

> If it is the similarity of beings or phenomena that allows us to enumerate them and treat them as dimensions, the numbers thus obtained will have quite a different meaning according to whether the similarity is a fortuitous one, produced by an unsolicited encounter of different causes, or is the direct and in some way intentional effect of a single cause […] the cause of the imitative repetition of the acts, thoughts, or feelings of others.[7]

It should already be clear that Tarde's account of imitation is quite different from what one may commonly consider to be a theory of imitation. In the following, I focus on beliefs and desires and their quantitative nature in order to explain why Tarde believes they are the content of imitation, if not exclusively than certainly in the most significant cases.

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[3] Ibid., xiii, xix, 197.
[4] Ibid., 207, footnote 1.
[5] Ibid., 207.
[6] Tarde, "Quantification and Social Indicators," 188.
[7] Ibid., 188–89.

a) The imitation of beliefs and desires

Tarde emphasises that it is not a transmission of physical impulses between individuals that interests him in the imitation process but instead the transmission of beliefs and desires.[8] This does not mean that physical impulses are not required for the imitation to take place; after all, the imitating individual needs to be exposed in some way to the model that is imitated, which presumably occurs through the senses acting as a medium when they translate some physical input into a mental state. All Tarde is saying, then, is that he is not interested in what conveys the model to the individual who imitates it. This is a psychological process, not a social one, as it takes place entirely on the level of the individual. Reduced to the physical input that carries the model from source to imitator, a belief or desire does not differ from the sensory signals received from any other sensory stimulation. Yet there is something about these particular mental states, i.e., beliefs and desires, that makes them importantly different from sensations, namely the fact that they lend themselves to being imitated.

b) Beliefs and desires versus sensations

Tarde left much unexplained about beliefs and desires, explicitly admitting that he is unable to provide a definition,[9] or to explain how they are transmitted or imitated. In *Laws of Imitation,* he says, "What is the essential nature of the suggestion which passes from one cerebral cell to another and which constitutes mental life? We do not know. Do we know anything more about the essence of the suggestion which passes from one person to another and which constitutes social life? We do not."[10] However, one characteristic of beliefs and desires that Tarde is

[8] Tarde, *Laws of Imitation*, 145-146.
[9] Tarde, "Belief and Desire," 166.
[10] Tarde, *Laws of Imitation*, 76.

adamant about is their quantitative nature. He calls them the "quantities of the soul"[11] or "psychological quantities"[12] and contrasts them with sensations, which he calls "qualities."[13] He further maintains that as quantities they do not differ from individual to individual, which allows for common beliefs and desires to be formed. This, too, is in contrast to sensations:

> But it is no less true that the quantitative aspects of psychological phenomena are those which are by far the most easily and rapidly communicated from one mind to another, the most recognizable as identical in all minds, the most able to form logical and fruitful unions—fruitful in products—called ideas and needs, which spread and combine with the same facility, and so forth ad infinitum. There is nothing more contagious among men than faith, unless perhaps passion. Sensations are not contagious, and one is never certain that they are transmitted without considerable alteration; an image loses its special character when it passes from *visual* to *auditory* or *motor*.[14]

As he says, beliefs and desires are the unaltering quantitative aspects of psychological phenomena and what makes them contagious. It is these two characteristics that distinguish beliefs and desires from other mental states, especially sensations. Over the course of his writings, Tarde somewhat changed his mind on whether the quantitative character of beliefs and desires is their distinguishing factor from sensations. While he argues as much in his first philosophical publication of 1880, in the second edition of *Laws of Imitation* (1903) he instead leans on contagiousness as the key distinguishing factor, conceding that there are quantitative aspects to sensations.

> I may have somewhat exaggerated the role of belief and desire in individual psychology, and I no longer affirm that these two aspects of the ego are the only things in us which are susceptible of addition and diminution. On the other hand, I now attribute to them a greater importance in social psychology. We may admit that there are other quantities in the soul; we may concede to the psycho-physicists, for example, […] that the intensity of sensations, considered apart from their relation to reason, and apart from the amount of attention which is bestowed upon them, changes in degree without changing in nature, and that it therefore lends itself to experimental measurement. But it is nevertheless true that, from the social standpoint, belief and desire bear a unique character that is well

[11] Tarde, *Monadology and Sociology*, 63.
[12] Tarde, "Quantification and Social Indicators," 187–88.
[13] Tarde, *Monadology and Sociology*, 19.
[14] Tarde, "Quantification and Social Indicators," 190.

> adapted to distinguish them from simple sensation. This character consists in the fact that the contagion of mutual example re-enforces beliefs and desires that are alike, and weakens or strengthens, according to circumstances, beliefs and desires that are unlike, among all those individuals who experience them at the same time and who are conscious of so experiencing them. […] Whereas, although a visual or auditory sensation may be felt in a theatre, for example, in the midst of a crowd attentive to the same concert or spectacle, it is in no way modified by the simultaneity of the analogous impressions experienced by the surrounding public.[15]

Despite this shift in emphasis towards contagion, the claim that beliefs and desires are quantities resurfaces again in *M&*S, hence we need to understand what this means. So what does Tarde mean when he says that beliefs and desires are the quantities of the soul and that they do not differ from individual to individual? Two individuals exposed to the same external stimulus may certainly perceive a different sensation, e.g., if one of them is colour blind, but to say that beliefs and desires, in contrast, are the same for the transmitting as for the receiving individual in an imitative exchange may strike one as puzzling. Note also that Tarde concedes that individuals who share a belief may still differ in the degree of conviction with which they hold the belief, and that a shared desire may be more passionately felt by some than by others, but he conceives of these differences as continuous and remaining the same in kind or form.[16] I do not believe Tarde denies that beliefs and desires have qualitative content. When he speaks of beliefs and desires being "alike" in the passage above, he clearly means they share content. What distinguishes them from sensations, for Tarde, is that their quantitative intensity is contagious—amplified or diminished through mutual awareness and imitation—whereas sensations do not behave this way socially.

It is the manner of believing and desiring that is the same across every individual, while that does not hold true for sensations. In Tarde's words:

[15] Tarde, *Laws of Imitation*, 145, n. 1.
[16] Tarde, *Social Laws*. 20-21. Tarde, "Belief and Desire."

> But can we conceive of someone who cannot distinguish between yes and no in the way some cannot distinguish between red and green, or of another person who manifests signs of what we call desiring something and then expresses contentment when it is denied to him? Can we concede that there are two ways of *listening* or of *looking* just as there are two ways of hearing and of affecting the retina? If, in addition to sensations, belief and desire differed from one man to another, tradition would be but an empty word, and nothing human could be transmitted unchanged from one generation to the next. When someone proves to me that he does not smell the way I do, I feel alien and indifferent; but if he contradicts me, I immediately feel jarred by a force contrary, hence similar to my own. If someone tried to placate me by saying that perhaps the person in question does not deny just the way that I do, I would take it as a bad joke.[17]

To fully understand the distinction Tarde draws between beliefs and desires, on the one hand and sensations on the other, and especially his insistence on the unchanged transmissibility of beliefs and desires, it is helpful to understand his motive for characterizing beliefs and desires as psychological quantities rather than qualities. The quantitative characteristic of beliefs and desires is paramount for Tarde as this is what enables sociology to be a science, the establishment of which was a main concern for him and other authors of his time. For scientific study to be possible, the facts it is concerned with must be repetitive, allowing comparisons of similarities and the discovery of differences. The evidence for Tarde's position that sociology can constitute a science, then, is that we can observe popular beliefs and common desires whose rise and fall can be measured. We can do this with polls or by observing the stock market, for example. Comparisons can then be made with different time periods and across different societies. It follows that it must be possible to transmit beliefs and desires in a more or less unchanged manner from person to person, otherwise a shared belief would not be possible. Yet, as we have seen, what Tarde often seems to mean when he says that beliefs and desires remain unchanged when imitated is that the *way* we believe and desire remains the same, i.e., that we all mean the same by denying or affirming a belief and that we are all experiencing a feeling of

[17] Tarde, "Belief and Desire," 172.

resistance when a desire is denied or a belief is opposed.[18] How can we reconcile the claim that the way we belief remains the same with the forming of common beliefs and desires, given that these must be alike in content? Furthermore, how can this claim be reconciled with the formation of social entities around beliefs and desires that are shared through imitation, as Tarde proposes? Surely, when someone imitates a belief or desire, they do not simply imitate the manner of believing and desiring. Lastly, how would we ever arrive at a judgment regarding the truth or value of something if there wasn't agreement concerning the content? After all, a further importance of imitation consists in the fact that it is by means of the imitability of beliefs and desires from individual to individual without changing their nature that truth and value are formed.[19]

As I see it, there are two aspects to belief and desire that inform the answer. First, homogenous factors affect the rising and falling of belief or desire while maintaining the same directionality, that is, the same positive or negative inclination towards a certain belief or desired object. In other words, the intensity of the same belief or desire may fluctuate. Secondly, beliefs and desires always have an opposite, which is not their maximal difference but rather arises by virtue of their similarity.

Regarding the first aspect, according to Tarde, beliefs and desires lie on a scale. An individual's belief in something can rise or fall, or one individual's belief may rise while another's falls. However, within the same individual it is not possible that one and the same desire or conviction rises and falls at the same time. Similarly, it is not possible to feel an increase at the same time as a diminution of someone's affection toward another. Note that the rising or falling of belief or desire are the alternating increase and decrease of the same force that

[18] Tarde, *Social Laws*, 22.
[19] Tarde, "Quantification and Social Indicators," 190.

acts in the same direction–believing something a little more vigorously, then a little less, loving someone a little more intensely, then a little less. This rising and falling is only possible successively, not simultaneously, with regard to the same belief or object of desire, as one obviously cannot experience an increase in belief or affection at the same time as a diminution.

Rising and falling belief or desire is best compared to an object that first moves quickly and then more slowly in the same direction, or perhaps volume being dialed up and then down, or the gas pedal stepped on hard and then released. Neither can happen at the same time. Tarde calls the forces responsible for the changes affecting such rising and falling while maintaining the same direction homogenous forces, and the phenomena by means of which these homogenous forces become actualities are quantitative phenomena, for instance, the rise or fall in the number of church goers or the birthrate.[20] When a group of people holds the same belief or desire the same thing, they can differ among themselves in this quantitative way without actually holding different beliefs or having different desires. Within such a group it is also possible for beliefs or desires to rise among some and decrease among others simultaneously.

Turning to the second aspect, the rising and falling of beliefs and desires is a very different matter than experiencing innately opposed beliefs or desires, which are qualitatively different forces with their distinct directions. If we consider again the analogy of a moving object, a second object moving in the opposite direction may collide with the first. The force of these beliefs and desires have opposing signs. Opposing beliefs or desires can exist simultaneously among different individuals, of course, but also within one individual. It is possible for the same individual to hold, usually unconsciously, two beliefs that are of opposite signs, e.g., vigorous affirmation and implicit denial of a religious dogma. Similarly, while it is not possible to feel an

[20] Tarde, *Social Laws*, 46.

increase at the same time as a diminution of someone's affection towards a person, one can love and hate a person at the same time.

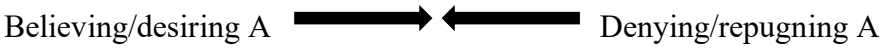

Figure 11: The simultaneous believing in/desiring of A and the denying/repugning of A

Every belief and desire possess two opposite signs, believing something and denying it, or desiring something and repugning it.[21] Tarde remarks that this characteristic of the subjective quantities of beliefs and desires permits a comparison with objective quantities, e.g., mechanical forces.[22] Note that these opposites are not due to maximal differences but rather to a particular similarity which is really a duality. Just as object A can collide with object B only if they are moving on the same path, a true opposition of a belief or desire only exists with one other belief or desire, namely the one that precisely negates it. Hence for Tarde it would not be accurate to assert that tyranny is opposed to democracy or Christianity to Islam. They may, however, deny and affirm the same dogma or desire and reject the same end.

These two characteristics of beliefs and desires, i.e., the possibility of their fluctuation in degree and the existence of opposing signs for each belief and desire, are universal. Tarde argues that an opposition between two or more individuals ("external opposition") can exist only because the same opposition can, at least as a tendency, exist within one individual ("internal opposition").[23] In other words, "the mind and heart of each individual man is capable of containing both the yes and the no, the pro and the con, with respect to any given concept or aim."[24] This, then, is what he means by the notion that everyone believes and desires in the same

[21] Ibid., 47.
[22] Ibid.
[23] Ibid., 49.
[24] Ibid., 50.

form or manner. At the same time, it explains why it is possible to accumulate commonly held beliefs into the common belief of a group, and similarly with desires.

The same is not possible for sensations, and now we can understand why. Since we do not all sense the same way, and more precisely because there is more of a difference between individuals' sensation than that of degree, as for example sensations of the same degree may differ or resemble in respect of their quality, sensations do not aggregate as beliefs and desires do. Consider two people tasting the same spicy dish: both might rate it a 7 out of 10 in intensity, yet for one person the sensation is pleasurable with notes of smokiness, while for the other it is painful with an overwhelming burning character. We could never be sure that a given set of sensations is sufficiently similar to another for us to count them as the same.

Sensations also do not have opposites; they exist along continuous spectra rather than discrete categories, making them impossible to categorize discretely and subject to statistical measurement. Even so-called opposites like hot and cold are not truly opposed sensations, but distinct kinds of sensory input processed by different receptors—each with its own qualitative feel, not a symmetrical inverse of the other. While beliefs and desires also vary in intensity, like sensations, their spectrum is anchored by shared content—*what* is believed or desired—which allows them to be compared, reinforced, and aggregated across individuals. Sensations lack this common anchor: their variability is not just a matter of degree, but of kind, making them resistant to the kinds of coordination and statistical generalization of which beliefs and desires admit.

Lastly, a key difference between beliefs and desires, on the one hand, and on the other, sensation, lies in the former's social transmissibility. Individual awareness of belief or desire works the same way for everyone. An individual will easily feel connected to another with the

same belief or desire, knowing that while they may differ in the degree of their commitment, both reject the same opposing beliefs and are more likely to believe other ideas that align with the first belief. Hence, one person's belief affirms my own due to the fact that we believe in the same way, as Tarde put it. Add to this the fact that all beliefs and desires are copies of the same model with mostly negligible variations and we see that differences among individuals consists in their unique combinations of common beliefs and desires.

c) The origin of beliefs and desires lies in the natural world

I now turn to what (little) Tarde has to say about the origin of beliefs and desires, which he says are created by invention and imitation.[25] "Created" here means that general beliefs and desires are made specific by invention and imitation. Yet, the origin of every belief or desire, according to Tarde, lies in the "world of life."[26] That is nearly all he has to say about the matter. However, it suffices to tell us that beliefs and desires are fundamentally not social but natural phenomena concretized by social mechanisms. Unfortunately, Tarde, who is usually so generous with examples, does not provide any insights into what natural beliefs and desires he means or how exactly invention and imitation concretise them. But as an approximation it seems fair to assume that hunger and thirst are examples of the general desires he may have had in mind and their concretization would be the desire for some particular food or drink, a desire that did not exist prior to the object's invention or popularity. An example of a general belief might be a natural fear of everything foreign, whereas a specific belief that becomes concretized on this basis by means of invention or imitation might be homophobia or racism. I have more to say on this matter in Chapter IV.

[25] Tarde, *Laws of Imitation*, 146.
[26] Ibid.

To draw a brief résumé, we have seen that beliefs and desires are the content of imitation, and that imitation creates, that is, concretizes, beliefs and desires that originate in natural beliefs and desires. We have also seen that beliefs and desires have characteristics that allow them to be imitated, which in turn creates common beliefs and desires among groups of people. Finally, a group of people sharing beliefs and desires as a result of an imitative process form a society. As Tarde says: "Society may therefore be defined as a group of beings who are apt to imitate one another, or who, without actual imitation, are alike in their possession of common traits which are ancient copies of the same model."[27]

d) Common beliefs and desires

Before I turn to the laws in accordance with which imitation occurs, I address why Tarde thinks that shared beliefs and desires arise by means of imitation, why imitation is always of a concrete model, and why it is that individuals imitate at all. Tarde dismisses organic heredity or identical environments as the main cause of common beliefs and desires, observing that neither can account for the concrete realization of natural beliefs and desires that we see today: "Organic needs and spiritual tendencies exist in us only as potentialities which are realizable under the most diverse forms, in spite of their primitive similarity; and, among all these possible realizations, the indications furnished by some first initiator who is imitated determine which one is actually chosen."[28]

Two things are important in this remark. First, Tarde believes that absolutely everything we do aside from physical reflexes and bodily functions are imitations of a model that was suggested to us, and secondly, the suggestions we receive always originate from particular individuals. As

[27] Ibid., 68.
[28] Tarde, *Social Laws*, 24.

children this is most clearly observable when we imitate parents first. Later behaviour may be influenced by a less personal model or by an indefinite, indeed even coercive group, such as co-religionists, the media, or peers. But Tarde points out that when we look closely, we will always find concrete individuals behind such seemingly indefinite influences. Every complex social construct, whether a language, custom, political institution, or anything comparably social is the result of the imitation of innumerable individual contributions.

And why are they imitated? Tarde observes that a tendency in individuals to imitate is grounded in indolence.[29] Imitating another's suggestion that satisfies a need is less onerous than coming up with a satisfying solution by oneself. To use a contemporary example, if someone does not know how to assemble a piece of furniture, a common course of action is to perform an Internet search or ask ChatGPT to find what others have come up with and follow their example rather than inventing a technique of one's own. The next time individuals are faced with the same issue, they can even be said to imitate themselves, which Tarde calls internal imitation and designates as the first step in the formation of habits.[30] The question remains how it is that we choose one particular suggestion over another, both directed at solving the same issue or meeting the same need. This process of choosing which suggestion to imitate is governed by certain laws that Tarde formulated and which are discussed in the following section.

2) The laws of imitation

How do individuals consciously or unconsciously select among the beliefs and desires they are exposed to when encountering external influences, either directly or mediated in some way? When answering this, Tarde first admits that he is selective in the influences he examines for

[29] Ibid., 33.
[30] Tarde, *Laws of Imitation*, 75.

their role in this process, omitting physical causes such as cerebral preconditions or preconditions resulting from the nature of the flora and fauna surrounding the innovating or imitating individual.[31] Instead, he focusses only on social causes when explaining how individuals and societies as a whole progress from idea to idea. I should note here that Tarde is not always precise in his use of the term "idea." Sometimes he treats beliefs and desires as the content of ideas; elsewhere, he treats beliefs and desires as ideas themselves, or as components of more complex ideas. In what follows, I adopt the interpretive stance that "idea" functions as a general category for belief-desire complexes—mental representations with propositional and motivational structure—even if Tarde does not consistently define the term this way, or at all.

He observes that certain newly invented ideas can be assimilated into an individual's or a society's framework of beliefs and desires so that they can co-exist with previously invented and incorporated ideas. Such alliances of ideas are formed when there is no logical contradiction between a new idea and those which individuals already hold. Other ideas, however, may directly conflict with the pre-existing framework, so that a decision has to be made which one to adhere to, the new idea or the one already held, resulting in what Tarde calls "logical alliances" and "logical combats" among beliefs and desires.[32] Tarde's use of the term "logical" does not refer to formal deductive logic in the contemporary sense. Rather, his logical laws of imitation are general rules of idea propagation—patterns by which beliefs and desires repeat, oppose, and adapt across individuals. They are "logical" insofar as they follow intelligible, often conflicting, regularities of association.

[31] Gabriel Tarde, "Sociology," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 83. and Tarde, *Laws of Imitation*, 140.
[32] Tarde, *Laws of Imitation*, 149.

Tarde also identifies as highly influential in our choices of which examples we follow extra-logical causes for the formation and the spread of imitative rays, that is, directional flows of influence from one individual to another. These are factors such as prestige, emotion, habit, or chance—non-rational influences that shape imitation independently of any internal coherence or logical relation among ideas. He notes that it is rare that we make exclusively logical choices. More commonly, extra-logical considerations factor into our choice as well. We shall now examine both social causes in turn.

a) The logical laws of imitation

According to Tarde, every human individual's impulse, and as a consequence that of every society as a whole, has as its purpose the achievement of certitude and stability, which he explains in terms of a lack of desires and a set of harmoniously co-existing beliefs; in a word: peace. More mature individuals and more mature societies show this development to a greater degree compared to their more immature counterparts. The advance towards achieving this peace is what Tarde calls progress "along logical lines."[33] This progress is effected by means of two different tendencies; one being creative, as in new discoveries or inventions formed from combining old ones in new ways, and the other being critical, initiating a struggle among contradictory inventions or discoveries. The former are the logical alliances, and the latter are logical duels, which I shall discuss first. All examples that I use as Tarde's own.

i. Logical duels

Logical duels arise between two inventions or discoveries that have the same object or satisfy the same desire. At first the duel takes place within the individual mind. When a new idea is

[33] Ibid., 31.

introduced by a peer, a book, or any other medium, Tarde observes there to be first a hesitation in the individual's mind to adopt the new idea before it is imitated. For instance, there may be a conflict between two political candidates, both soliciting an individual's vote, or between two objects, maybe a work of art and some utilitarian item that the individual considers purchasing, having only enough money for one or the other. Another example would be when one must choose between two expressions or two alternative responses to a situation. As long as individuals are still hesitating they are not imitating. Once they imitate they have overcome the internal conflict and as imitators become part of society.[34] Ironically, therefore, only when an individual has found intracerebral peace does societal conflict begin.[35] This process occurs in many individuals at a time and with regard to countless conflicts among beliefs and desires. Once the conflicts are overcome through some new invention an overall rise in faith in the new invention results, and a loss in faith in any previous invention.

Tarde notes that there are always only two opponents in these duels, one that says *yes* and the other that says *no*.[36] As a reason for this binary characteristic he mentions the universality of imitation, without going into any further detail.[37] I understand him to mean that there is either an imitation of the new idea or there is not. If there is, then the new idea is affirmed, if there isn't then it is negated, while if the new idea is implemented with certain adaptations, then there is a partial negation and a partial affirmation as well as an innovation. Of course, a conflict between two inventions is inevitable only if the new one in some way contradicts the first one.[38] If the

[34] Ibid., 165. Note that while the internal conflict solution is an individual act, Tarde clarifies that it is a result of previously completed act of imitation, since the competing ideas are results of former successful duels. See Ibid., 166.
[35] Tarde, *Laws of Imitation*, 166.
[36] Ibid., 155.
[37] Ibid., 167.
[38] Ibid., 156.

ideas do not contradict each other, an alliance between them may be formed, which I discuss below. Drawing from our findings regarding the quantitative nature of beliefs and desires, we can formulate the dualism characteristic of imitations in the following terms. There are always only two opponents in a logical duel because any given belief or desire always has only one opposing belief or desire. When faced with the decision whether to imitate a particular model, individuals have either to take on the belief or desire or they refrain from imitating it, thereby sustaining the opposing belief or desire they already hold. This doesn't mean individuals must consciously affirm or deny every idea they encounter; one can certainly suspend judgment. But in Tarde's framework, from the perspective of social propagation, a failure to imitate is equivalent to negation. The binary here reflects the logic of imitation itself: an idea either spreads (is imitated) or it does not.

Given the universality of imitation, combined with his theory of logical duels, Tarde describes the apparently continuous flow of history as consisting of actually separable events taking the form of "yes or no?" questions followed by answers that consist either of a suppression of the yes or the no position or their inconsistent combination.[39] There can be a conflict between two inventions, one of which may be an established status quo, because they satisfy the same desire in two different ways or because the satisfaction of two desires is mutually exclusive. An example Tarde brings of the logical duel that arises when there are two opposing desires would be the love for one's country and the love of exotic cultures or art, which can result in a conflict, as the latter implies an implicit judgment of the superiority of a foreign country that is in conflict with one's love for one's own country.[40] Another example is the desire of a sovereign to subject feudal lords in order to control their power, giving rise to the invention

[39] Ibid.
[40] Ibid., 158.

of gunpowder. This desire is met by the desire of the feudal lords to be independent, spurring the inventions of fortified castles and armour.[41]

More important in the course of history, according to Tarde, is the conflict that arises from two inventions satisfying the same desire in different ways.[42] A society that tolerates the existence of institutions that are in logical conflict contains what Tarde calls "a hidden evil" which could contribute to the demise of this society, as for example when Christian and pagan thought struggled for dominance under the Roman empire.[43] For Tarde, what is irreconcilable in conflicting conceptions are the affirmative and negative judgments that accompany them. Note, however, that a negative judgment alone is not sustainable against a positive. The denying party must offer an alternative as well, which in turn is denied by the affirming party. Hence, there are usually two sets of opposing affirmations and negations in a logical duel.[44] Often the strength of one side lies at first in its negation of the status quo and later in its affirmative content as it gains popularity, at which point the negating aspect of a formerly well-established position may be called upon to protect against the new idea.[45] Sometimes, Tarde observes, it is just for the sake of not doing the usual thing, of change for the pleasure of change, that new fashions are adopted. This is the case both in industry and the fine arts, he believes. When the novel idea is established for its own sake, the opposing side may hold on strongly to old habits, driven by the wish not to do what the rest of the public does.

At some point social conflict gives way to resolution, which occurs when individual irresolution is finally overcome in favor of one innovation in a great majority of the people,

[41] Ibid., 160–61.
[42] Ibid., 161.
[43] Ibid.
[44] Ibid., 162–63.
[45] Ibid., 164.

though seldom or never unanimously. So, the more popularity an invention enjoys over a long period the more inclined will individuals who previously resisted it become to change their mind and revisit the internal conflict they originally resolved by denying the invention. This, Tarde says, is how every custom and common belief arises. Even peaceful institutions originate in discord and can be regarded as a triumph over many defeated alternatives.

Tarde conceives of three ways that a logical duel on the level of society can be resolved: 1) the mere natural prolongation of an idea's progress suppresses its adversaries; 2) violent suppression by means of force, which creates external circumstances that favor the internal adoption either of the new or the old idea, depending on who wins and hence disrupts the natural flow; and 3) reconciliation of the two conflicting ideas, or the voluntary submission of one due to the emergence of a new discovery or invention.[46] This third way represents a change in external circumstances too, but one that originates within rather than externally. As an example, Tarde mentions the invention of the telescope and the associated astronomical discoveries that made it possible finally to end the dispute among the conflicting beliefs regarding whether the earth is motionless or instead revolves around the sun. Similarly, the invention of the wagon settled the internal conflict between the desire of moving heavy objects from one place to another and the desire not to have to carry them on one's shoulders. In the latter case, it is not that one desire wins at the expense of the other, but their incompatibility is extinguished.[47]

Regardless of which method is used to supress a conflict between beliefs, the harmony that results is fleeting, as it always creates a new conflict. When there has previously been a conflict between details, the suppression of one set of details is achieved by the introduction of a massive contradiction, which has then to be resolved. He sees outright war as a substitute for many small

[46] Ibid., 169–70.
[47] Ibid., 172.

individual struggles and oppositions.[48] Tarde says with the rise of industrial production, quarrels among hundreds of men over land and game came to an end as people began to work together in factories, where competition between their factory and that of a rival replaces the former struggle between individuals. He ponders whether social peace is always offset by some sacrifice of harmony. He conceives of the centralization of conflicts arising from contradictions as an advantage, believing that outright war is better than countless smaller battles among tribes or families, and that replacing natural wants with luxurious ones is preferrable, as the latter are less urgent.[49] A final state constituting political unity and universal peace will be achieved when monopolies are formed. As a step towards this final goal a centralization of conflicts is necessary.

ii. Logical alliances

Logical alliances are more prevalent than logical duels. In Tarde's words: "In reality, [a logical alliance] necessarily precedes, just as it plainly follows [a logical duel]. [Logical alliance] is both the alpha and the omega; [logical duel] is but a middle term."[50] Here is why. At first, every invention stands alone, undisputed or unrivaled by any conflicting one. Only once a base of words, laws, or myths, for example, has accumulated can new inventions come into conflict with established ones.[51] The bond among accumulated inventions is, however, a feeble one as it consists only in the fact that they do not contradict each other.[52] The set of accumulated inventions that results after logical duels have been resolved in any of the three ways mentioned

[48] Ibid., 186.
[49] Ibid., 187.
[50] Ibid., 173.
[51] Ibid.
[52] Ibid., 174.

above is of a different quality. This kind of bond consists in the fact that the inventions that stand side by side generally confirm each other.[53]

There is one important distinction to make, though, between two kinds of inventions or discoveries. One kind is such that it can be almost infinitely added to without the need to replace any of the existing innovations. The other variety can from a certain point onward be modified only by substitution.[54] I take it that only in the first case can an alliance be formed, whereas in the second case a duel is inevitable. The kind of invention to which one can add limitlessly will always be the one to start with. What is more, this kind of invention will continue the process of enlargement after the invention to which can be added by substitution only has been exhausted. However, after an invention of the second kind has been exhausted, those of the first kind will have a systematic character that was hitherto lacking.[55] An example of the first kind is the vocabulary of a language (one can always add more words), of the second kind its grammar (there is a limit to grammatical rules); or of the first kind, religious narratives, of the second religious dogma; of the first kind, scientific facts, i.e., sense-given data, of the second scientific theories; of the first, the means of industry, of the second its ends, of the first, the rules and regulations of any society, of the second its general principles of law.[56] We can call the first kind of inventions or discoveries *content* and the second *form*.

Let me expand on this using Tarde's examples. At first, words of a language can accumulate without much rhyme or reason. Once a grammar has been established, new words can still be added but they will be required to follow certain regularities, such as certain suffixes for the genders of nouns or for declinations, a particular letter for a plural, and so on, and they would in

[53] Ibid.
[54] Ibid., 174–75.
[55] Ibid., 175.
[56] Ibid., 179.

this sense affirm the existing vocabulary. On the other hand, Tarde suggests that if a new grammatical rule were to be added at the point where an exhaustive set of rules already exists, it would have to replace an existing rule, with which it is in conflict. There is, in other words, a finite set of grammatical rules that cannot be expanded limitlessly, Tarde claims without giving any further account of what makes such a set exhaustive. Similarly, at first, stories of gods, saints, and heroes might randomly accumulate without contradiction, but once a dogma has been established, the stories that are added will be required to reflect this dogma and not oppose it. The set of dogma is limited by the "conscience-tormenting problems" it has to solve, and once they have been solved new dogmas will contradict the existing ones.[57] Yet new tales can always be added as examples of the dogmas, mutually reflecting and reinforcing one another. In the example of science, some first accumulated facts are a sum of unrelated and non-contradictory data, though once the science has become established, the facts are made to confirm each other as more and more are added, though new scientific laws can generally be added only by substitution.

As a last example, consider industry. Its content is the means, i.e., the industrial machinery, which may be endlessly supplemented, but the form is the industry's ends, which can only be added to up to a certain point and thereafter a new one will have to replace an old end.[58] This is, I take it, because ends are not like tools or components that can simply be added on without changing the whole. Ends reflect a system's underlying moral, aesthetic, or political values, and these values tend to form a coherent structure. Adding new ends indefinitely would eventually create conflicts—shifting priorities or introducing contradictions—that force the entire system to

[57] Ibid., 176.
[58] Ibid., 179.

reorganize. So while new ends can arise, they usually do so by replacing or reordering existing ones.

Tarde concedes that at first sight it looks like the means too have sometimes been entirely replaced from one industrial system to another. For example, the manufacturing industry of Tarde's time was markedly different from the manual labor of the preceding century. Yet Tarde thinks that the ends have completely changed, going from the desire to prepare for the afterlife, win the favour of the gods, make one's city attractive, or express one's religious faith or the national pride, to the new goal of an equal society. But with regards to the means Tarde holds this not to be the case, because the means of one industry are absorbed into the more perfect invention that is often the cause of some more primitive innovation's demise. The cart survives in the carriage, the carriage in the locomotive. A curious difference in the case of industry is that the intersection of the ends and means is often accidental rather than necessary. The means could be put to use for different ends as well, whereas a specific religious myth can generally only be an example of a particular religious dogma. The ends of an industrial system are defined by the prevailing ideas of justice, beauty, and appropriate conduct. After a well-defined moral and aesthetic system has been formed, the previously scattered wants of a society become organised, hierarchically ordered and made to form a mutually confirming harmony.[59]

Tarde follows his distinction between the two kinds of invention and discovery, that is, of content and form, where the former denominates the kind that can be added to infinitely and the latter requiring a substitution after a certain point, with remarks that are worthwhile mentioning here. He observes that his contemporary society occupies itself predominantly with innovations and discoveries of the first kind. In the pursuit of new means people neglect to ask whether the

[59] Ibid., 181.

existing ends justify and give value to the new means. Tarde rhetorically asks whether the cultivation of forms, that is, of principles, dogmas, and so on, is less worthy than that of content, for instance data, vocabularies, myths, or laws.[60] He answers that what is essential is always the form, not the content, observing that what laws are good for is the furthering of higher principles of justice, that words are good for forming sentences, and that facts are good for forming theories. Yet, continuous accumulation is the easier path than that of substitutions. It is easier, for example "to multiply wants by virtue of an ever richer and more varied consumption and production than to substitute for some dominant want a superior and preferable want, one more conducive to order and peace."[61] As a result we have artificial wants that are all satisfied notwithstanding any disharmonies among them. Tarde believes it is the task of contemporary society to bring our wants into harmony and focus on the fruitful ones, fully acknowledging that this is a difficult task but a necessary one.[62] So, for example, we can clearly see today that overconsumption is a habit that threatens the planet's ecology and creates a disbalance that causes suffering. Simplicity and a focus on harmony seem to be urgently needed yet advocated for only by few.

b) The extra-logical laws of imitation

Assuming that two conflicting models presenting themselves simultaneously to an individual are not discernible in terms of the logical superiority of one over the other, which I just discussed, Tarde suggests that three extra-logical influences determine which model is imitated, though the first extra-logical influence is actually logically required and could have been considered under the logical laws.

[60] Ibid., 181–82.
[61] Ibid., 183.
[62] Ibid., 184.

The first extra-logical law is that imitation occurs from within to without, meaning that imitation of the idea generally precedes its manifestation in the behaviour of the imitator. In other words, individuals do not first imitate the behaviour that expresses an idea, but the idea itself. As mentioned earlier, I take it that "idea" functions as a general category for belief-desire complexes.

The second extra-logical influence is the tendency to imitate a superior over an inferior. The third is that sometimes an example that reaches us from the past is more readily imitated, whereas in other cases an example from a contemporary model is more likely to be taken over.

Before diving into the first extra-logical influence, I turn briefly to Tarde's introduction of the two new concepts of credulity and docility, docility sometimes being referred to as obedience, to denote imitations of beliefs and desires in which logic plays no role.[63] When a belief is imitated without an assessment of its logical content it is because the imitator is credulous, and when a desire is imitated without first checking its compatibility with one's own purpose it is because the imitator is obedient. For obedience it suffices to will in accordance with another's will and does not necessarily require action,[64] while imitation can be passive as well as active, or merely in thought as well as in action, though usually it is in thought first, as we will see next.

i. Imitation of beliefs and desires in advance of changes in behaviour

Tarde describes the tendency of individuals first to imitate an idea before they imitate a behaviour: "This progress [i.e., imitation] from *within* to *without*, if we try to express it more precisely, means two things: (1) That imitation of ideas precedes the imitation of their

[63] Ibid., 197.
[64] Ibid., 198.

expression. (2) That imitation of ends precedes imitation of means. Ends or ideas are the *inner things*, means or expressions, the outer."[65] He does not deny that it is possible to imitate behaviour before the underlying idea, but he notes that if this happens, and allegedly it is rare, the imitation remains superficial and will not proceed to the imitation of the idea as well.[66]

In *Laws of Imitation,* Tarde does not provide a reason why imitation should proceed from within to without. This will become clearer (although he never makes it explicit) when we turn to *M&S* in the next chapter. Briefly, Tarde gives metaphysical priority to beliefs and desires, that is, to relations, over individuals, which he dissolves, eradicating the individual as a basis for the imitation of behaviour. Beliefs and desires, on the other hand, remain independent of individuals, and since they form the basis for ideas, it makes sense that Tarde should be adamant that imitation principally affects ideas, that is, beliefs and desires.

As we saw at the outset of this chapter, Tarde defines imitation as "the action at a distance of one mind upon another, and […] action which consists of a quasi-photographic reproduction of a cerebral image upon the sensitive plate of another brain."[67] This definition becomes clearer in view of Tarde's "from within to without" law. He believes that humans are uniquely able to imitate the action of nerves and brains, whereas other animals are for the most part only able to imitate muscle action. To be clear, Tarde really means that something internal passes from individual to individual when imitation occurs:

> Moreover, this unique relation is not a physical impulse given or received, nor is it the transmission of motor energy from the subject to an inanimate object or vice versa, according as we are dealing with an active or passive state; it is rather the transmission of something internal and mental, which passes from one to other of the two subjects, and that, curiously enough, without being lost or in the slightest degree diminished in the first.[68]

[65] Ibid., 207.
[66] Ibid., 207, n. 1.
[67] Ibid., xiv.
[68] Tarde, *Social Laws*, 21.

He gives a plethora of examples for where this law applies, but I shall limit myself to some of the more cogent ones. Tarde holds that the invention of language would be incomprehensible if it weren't for this law of imitation occurring from within to without. Imagine individuals who associate in their minds a thought with a sound and then set out to teach the sound and its meaning to their peers. Assume the sound was then imitated by their peers. If all that happened was this audible imitation, then the meaning would be lost and we would not be justified in saying that the imitator has learned a new word. It is necessary that the meaning, the thought, be conveyed along with the sound. Let's consider, as a further example, the innovative idea of the wagon and its transmission from the innovator to an observer via a sketch. Here too, something more than the sketch of the wagon is transmitted to the observer's mind, namely an idea that revolutionizes the transportation of heavy goods. And we do not need to have the observer reproduce the sketch to be able to claim that the idea has been transferred or imitated. This would be an example of passive imitation. Similarly, we can observe that children understand the meaning of words before they are able to make the associated sounds. Hence, the imitation of the sound is not necessary for the imitation of the idea.[69] On the societal scale, Tarde observes that before the fashion, furniture or architecture of a foreign culture are imitated, their stories and poems, in short, their spirit, is already being imitated of which the clothes and buildings are just a manifestation.[70]

Just as style does not create the thought behind it and art does not create a religion, Tarde observes that laws always follow a development in the economy or an intellectual shift in society rather than preceding them. In this case, laws are an outer manifestation of inner changes. He further notes that the outer manifestation often survives significantly longer than the

[69] Tarde, *Laws of Imitation*, 204–5.
[70] Ibid., 199.

corresponding ideas.[71] For example, people may continue to perform certain religious rituals despite having given up their faith, and many laws certainly remain on the books long after they no longer serve the purpose for which they were enacted.

ii. Imitation of the superior by the inferior

The second extra-logical law of imitation is partially implied in the first. As we have seen, at the beginning of a chain of imitation it is the inventor of an idea, the holder of a new belief or a desire, who transmits the idea to someone else. At this moment of first imitation there is a hierarchy between the inventor and the other individual which is established by the superior power of invention that resides in the innovator. Tarde argues that the power of invention is what determines social hierarchy. We often point to power and wealth as factors that distinguish those of high social status and give them prestige in the eyes of others. Tarde too sees a clear connection among power, wealth, and social superiority, but he believes that this is the connection of cause to effect. To him, power and wealth are characteristics that enable one to exploit existing discoveries and inventions and render them productive. Recall that an invention is the combination of two or more pre-existing discoveries or inventions, as the idea of a wagon combines ideas of axle and wheel. Power and wealth (the effect) are obtained by one's ability to innovate (the cause).[72] Furthermore, the characteristics that lead certain figures to become prestigious always depend on the social context. Different times require different subjective traits for obtaining prestige. Physical strength was important in early small-scale societies, later skilful warriorship, then eloquent speech, innovative spirit, and scientific genius. While these are all bodily qualities or personal traits, for Tarde the superiority is always a social one. For example,

[71] Ibid., 210.
[72] Ibid., 233.

in early societies, prestige may have gone not to the physically strongest, but to those most skilled with tools or weapons.[73] The reason why muscularity as an attribute is less and less likely to result in a prestigious position in society is because society progresses towards higher complexity by accumulating new inventions and discoveries by means of logical alliances than it eliminates by means of logical duels, leading to higher complexity. Navigating a society of high complexity requires cerebral qualities more than physical strength. In addition, relying on physical labour becomes less necessary with access to mechanical inventions.[74]

Tarde points to a consequence of this law, namely that where the inequality between the superior model and the inferior imitator is greater, the spread of the imitation is more rapid.[75] He further observes that superiority reliably prevails as long as the superior takes the initiative and is innovative. If the emphasis is instead placed on reverting back to tradition, then the decline of the superior's influence has commenced.[76]

In addition to these subjective traits there are also objective circumstances that foster innovative abilities. For example, residing in a city provides greater resources in the form of access to new ideas. Hence, prestige sometimes exists by presumption and attaches to a certain place of residence or origin.[77] Note also that the absolutely most superior is not imitated, but rather the most superior *among available models*, where this availability does not depend on mere proximity in kilometers but has instead a sociological meaning, denoting the closeness and frequency of the relations among models and imitators.[78]

[73] Ibid., 237.
[74] Ibid., 238.
[75] Ibid., 216–17.
[76] Ibid., 221.
[77] Ibid., 237.
[78] Ibid., 224.

The prime example of this law is the inclination of the peasantry to imitate the nobility and of people in the countryside to be fascinated by and strive to copy new ideas stemming from the city. The same mechanism is at play in relationships between children and parents, employees and employers, junior and senior professionals, and so on. Consequently, Tarde believes that a model idea would, at least at first, always "*descen[d]* from the superior to the inferior."[79] Conversely, the example of someone who is less well regarded in society will not be imitated by someone higher up in the social hierarchy. Note, however, that this only holds true under the assumption that the new idea is not logically preferable to a competing one, whether existing or also new. Furthermore, even in the absence of logical laws determining the model selection, a superior may, but to a much lesser extent, imitate an inferior, particularly if they are in close and prolonged contact. Yet Tarde strongly focuses on the influence of examples from above to below, given that this kind of influence and the credulity and docility it expresses is more responsible for the "general levelling" of society that ensues.[80]

As societies modernize and become more democratic, so that the main political power is no longer a king or an aristocracy, but the majority, it is the majority that carries prestige. However, as individuals become more alike, Tarde claims (following Tocqueville), they are less and less inclined to have faith in a fellow individual merely as a direct result of their likeness. Again, with a narrowing gap of prestige, imitation becomes reciprocal and slows down. Yet, individuals living in an egalitarian society trust the guidance of the majority with the argument that if all individuals are equally bright, the idea that obtains the largest support is likely true. Tarde reveals why this is an illusion. This trust disregards the influence of imitation. "When an idea arises in triumph from the ballot-box we should be infinitely less inclined to bow down before it

[79] Ibid., 214.
[80] Ibid., 215.

if we realized that nine hundred and ninety-nine thousandths of the votes that it polled were but echoes."[81]

c) Sometimes present models are preferable, sometimes past

The third law, Tarde maintains, is a consequence of the law of the imitation of the superior. It says that prestige does not only pertain to persons and locations but also to the time of the origin of the idea. However, depending on certain circumstances that I will illustrate, both contemporary as well as ancient ideas may be considered equally prestigious.[82] Contemporary ideas possessing a certain popularity are called fashions and ideas that have persisted over a long time are customs. Tarde observes that the imitation of fashion is feeble compared to the persistence of customs. Fashions come and go and only few develop into customs. Customs, on the other hand, endure, often despite having lost their initial function or utility. The reason is because having something in common with members of a society far outweighs any benefit of utility. Preserving things that members of society share keeps the social tie alive and well. By preserving a custom, the chain connecting individuals to their predecessors over generations, and the mechanism by which we confirm each other as members of a particular class remain intact. An example Tarde offers is that of teaching Greek and Latin. The only human want this custom supports is that of preserving the social ties to our ancestors and to other members in society that also belong to the educated class that knows Latin and Greek.[83] Looking at developments since Tarde's time, since the early 1980s knowledge of Latin is no longer required to be admissible to study law in Germany, for example, while this requirement persists in some German states for becoming a teacher of religious studies or philosophy. This example demonstrates the

[81] Ibid., 230.
[82] Ibid., 244.
[83] Ibid., 244-245, n. 1.

persistence of customs despite a decline in utility as well as the disruptive force of fashions over time. As short-lasting as fashions may be, their collective effect extinguishes customs eventually.

Customs, Tarde maintains, are often instilled by means of authority, presumably under the second extra-logical law of imitation, as opposed to (logical) persuasion.[84] This difference in how customs and fashions are passed on occurs not on the level of the voluntariness with which one or the other is imitated; it is rather that we are introduced to most customs during childhood and the mind of the child is presumably not yet filled with competing ideas or ones to which it has to conform. Hence, the child imitates the authoritative model more readily compared to a fashion that is introduced later. When someone is introduced to a custom later in life, e.g., when immigrating to another country, the new custom would presumably experience the same resistance as a newly introduced fashion. In addition, if a custom has lost its utility by the time a foreigner encounters it, it may be less readily imitated compared to a fashion because the custom is more likely to lose in a logical duel. Its lack of utility may mean that it does not fit well into the pre-existing worldview of the person encountering it with a more fully formed mind.

Tarde observes that individuals often suppose they are choosing freely the fashions they follow even if they concede that they acquire their customs under the influence of an authority (including local tradition). He believes this is a mistake. Afterall, one is easily persuaded to follow new ideas only if they appear to agree with already established beliefs and desires, which in turn are the result of previously prevalent obedience to authority.[85] This explains Tarde's insistence that customary aspects remain dominant in society because they provide the ground upon which new ideas are established.[86] On the other hand, he describes the move towards

[84] Ibid., 245.
[85] Ibid., 246.
[86] Ibid., 247.

fashion and away from customs as inevitable. While living in a rural community, for instance, individuals are exposed mostly to the example of their fathers and mothers and less to foreign, conflicting examples; hence customs are preserved for many generations. Tarde further believes that individuals in rural communities are receptive to a suggestion only in their childhood years, a time of "nervous susceptibility."[87] Later in life, this susceptibility diminishes as rural-living individuals are supposedly not regularly exposed to new ideas, and with near equal status in the face of their parents, i.e., their former superiors, the second law of imitation has less opportunity to apply. It follows that imitation slows down. Then, as the community grows, it will have to urbanize and with that comes the influence of strangers. In this case nervous susceptibility is preserved into adulthood because adults who reside in cities are constantly stimulated with new influences in contrast to adults in rural communities.[88] Furthermore, with the exposure to foreign influences, chances increase that the individual will encounter a new superior, for example a new ruler, ruling class, or other prestigious figure. The increased volume of examples and the increased susceptibility to them leads to the heightened importance of fashions over customs. While customs remain important, forming the ground on which it is determined which fashions are adopted and which are rejected, this ground slowly erodes as new ideas are introduced with increased frequency.

Tarde also observes the inverse of this movement, that is, a re-focusing on customs. According to him, "imitation which was at first custom-imitation and then fashion-imitation, turns back again to custom, but under a form that is singularly enlarged and precisely opposite to its first form. In fact, primitive custom obeys, whereas custom in its final stage commands,

[87] Ibid.
[88] Ibid., 248.

generation. The one is the exploitation of a social by a living form; the other, the exploitation of a living by a social form."[89]

To clarify this somewhat cryptic passage, let's take a language or religion as two of Tarde's examples of a vehicle of beliefs and desires that starts spreading through society. At first, it is common among a small group of people, such as a family or the population of a single settlement and perpetuates itself from generation to generation via custom imitation. But it may then begin to spread to neighboring villages as a new fashion. If it is successful, it establishes itself, while inevitably changing in the process, as the language or religion of a much larger group: first a city, a province, and then perhaps as the language or religion of a nation. Yet Tarde says there will come a time when the most expansive language or religion hits a natural limit. It may attempt to surpass it, but in vain. A nation or group of nations becomes what he calls an "impassable domain."[90] At this point—and he doesn't say how we can know where this point is—the language or religion will contract and once again focus on its perpetuation from generation to generation, establishing it as a custom. We can say that there is first a vertical expansion in the form of custom, followed by a horizontal spread as fashion, and lastly again a vertical spread of custom but on a larger scale. During the first, small scale phase of vertical spread, the language or religion is stable; it may not change noticeably for generations. Then during the phase of horizontal spread the language or religion becomes very changeable and many influences may shape it before it once again becomes immutable during the phase of vertical spread on a large scale. This journey explains the first part of the quote above.

But what does Tarde mean when he says that the imitation of customs during the last phase is the exact opposite of such imitation during the initial phase, saying that the former is

[89] Ibid., 253.
[90] Ibid., 276.

"exploitation of a social by a living form; the other, the exploitation of a living by a social form"? He explains that imitation at first depends on the unit from which it stems, i.e., in our example the family. A language, or perhaps at this early stage we should call it a dialect, first depends on the dynamics between adult speakers and children in order to be imitated. But once it has spread into the community and became the language of the tribe, city, or nation, it comes back to the family, whom it now subordinates to its example, which has of course changed considerably in the meantime.[91] In the final stage of custom imitation those individuals who excel at adapting to and exploiting the new ideas will prosper. In this way, the new ideas shape their civilization.[92]

3) Invention on the macro-level

Having set out Tarde's laws of imitation, I turn now to the mechanism generating new ideas, which is invention. Note that since Tarde seems to use the terms *innovation* and *invention* interchangeably in French, provisionally I will too. Following my treatment of imitation, I explain invention on the macro-level first, that is, how invention by human individuals works in a social setting. I turn to Tarde's explanation of invention on the micro-level, the level of monads, in the following chapter.

a) What is invention?

Imitation and invention are inextricably linked because inventions are mostly combinations of imitations that spread from individual to individual until they reach the inventor, who then combines them in a new invention, which is in turn passed on via imitation. We can thus see that both invention and imitation are social facts. Yet it is somewhat unclear how Tarde understands

[91] Ibid., 249.
[92] Ibid., 238–39.

the relation between invention and imitation. On the one hand, he says in *Laws of Imitation* that "an innovation that is not imitated is socially non-existent,"[93] which may be read as giving priority to imitation. This is further supported by the following passage from *Social Laws*:

> No one will deny that whatever we say, do, or think, once we are launched in the social life, we are forever imitating some one else, unless, indeed, we are ourselves making an innovation—an event that rarely happens; it is easy, moreover, to show that our innovations are, for the most part, combinations of previous examples, and that they remain outside of the social life so long as they are not imitated.[94]

In contrast, he also maintains, again in *Social Laws*, that: "[J]ust as each, consciously or unconsciously, adds his own little invention to the enduring heritage of social material of which he is the temporary repository, so, too, each has his own imitative radiation in a sphere more or less contracted, which, nevertheless, suffices to prolong his discovery beyond his own ephemeral existence," adding that "trivial ideas and infinitesimal innovations contributed by each of us [add] to the common work."[95] "As a matter of fact," he says in *Laws of Imitation*, "the most imitative man is an innovator on some side or other," conceding, however, that innovation in this sense does not pay "the slightest attention in the world to the degree of difficulty or merit of the innovation in question."[96]

These passages suggest that while not every act of imitation results in a new invention, imitation frequently carries with it some degree of variation or novelty. This raises the question of how to distinguish genuine innovation from minor modifications introduced in the process of imitating. One way to clarify this is to treat the rare, clearly distinguishable combinations of past examples as inventions properly speaking, while treating the smaller, incremental deviations as variations or modifications. I adopt this terminology going forward: "true" innovations combine

[93] Ibid., 150.
[94] Tarde, *Social Laws*, 24.
[95] Ibid., 88.
[96] Tarde, *Laws of Imitation*, xiv.

previous imitations into an invention that is noticeably distinct from its sources, whereas minute modifications may subtly transform the thing being imitated without fundamentally altering it. While Tarde never explicitly formalizes this distinction, he often treats innovation and imitation as closely linked, suggesting that even slight departures from an example may involve combining it with another imitative influence, or imitative "ray." Still, it remains unclear whether this implies a gradual spectrum between imitation and innovation, or a more substantive break.

For true invention he seems to require a particular process: "To innovate, to discover, to awake for an instant from his dream of home and country, the individual must escape, for the time being, from his social surroundings. Such unusual audacity makes him super-social rather than social."[97] The most plausible interpretation of this remark seems to be that imitation always has an innovative element to it which is a result of the fact that individuals differ from one another and as they incorporate a new idea presented as an imitative ray into their existing worldview the imitative ray has to shift a little to accommodate the existing ideas. The existing ideas of different individuals with which the imitative ray combines put different pressures on this ray to make it fit. As a result, each individual interprets the ray slightly differently, which constitutes the variation. This interpretation of variations will be taken up in the following chapter as it is there that we will achieve a clearer understanding of what individuals are and how they differ from one another. In this chapter, I focus on the mechanism by which true invention occurs. The important difference between variations and true inventions is that that latter take place consciously, that is, outside of the imitative state individuals are in most of the time.

[97] Ibid., 87–88.

b) Psychological conditions for invention

If inventions are, as Tarde maintains, combinations of prior innovations, why require the innovator to awaken from an imitative state? To understand this let's first look at the imitative state more closely. The assumed framework is that individuals have certain beliefs and desires and that they are driven to satisfy their desires and confirm and spread their beliefs. The approach of the imitator is that of a herd animal that blindly follows the example of others, embraces their ideas, never thinks of new ways of doing things, and never has a desire that does not imitate that of another. Tarde often describes the imitating individual as a somnambulist in whom a hypnotist has induced impressions, even when the hypnotized subject is unaware of the influence and acts under the illusion of free volition. An inventor, on the other hand, thinks of new ways of satisfying existing needs or conceives of new needs that can be satisfied in some new way. Invention, according to Tarde, is a volitionary act and requires deductive logic.[98]

> Every invention, be it theoretical or practical, is only a combination of imitations, but the nature of this combination remains to be explained. First, this synthesis presupposes a preliminary analysis or abstraction which has dissociated the elements of former inventions and perceived therein the possibility of new associations. This dissociation, like the association, occurs through an intense need for either finality or logic (depending on whether it is a practical or a theoretical invention).[99]

Hence, in order to innovate, human individuals must awaken from a dream-like social state, so they might be conscious of the dynamics of the imitative processes rather than being fully emersed in them. Second, when in the dream-like imitative state there is little inspiration for change, even though as natural beings individuals possess a curiosity that pulls them away from the influence of local traditions and conventions. Tarde says, "If the social man were not at the

[98] Gabriel Tarde, "Invention," in *On Communication and Social Influence: Selected Papers*, ed. Terry N. Clark (University of Chicago Press, 2010), 131.
[99] Ibid., 130.

same time a natural being, open and sensitive to the impressions of external nature and of alien societies, he would never be capable of change."[100]

Once awakened from the imitative state, the genius is able to see what his or her needs are, what means are currently available for their satisfaction, what elements combine in that means, and whether there are any disharmonies between the needs and the means for satisfying them or among the elements forming the means. Furthermore, these geniuses may conceive of new needs by drawing inspiration from nature or foreign societies and devising a harmonious means to meet them.[101]

What drives this dynamic of parsing existing ways of satisfying needs and associating inventions in novel ways into ingenious collaborations? Tarde said above that it is "an intense need for either finality or logic." To gain a better understanding of what that means, let's look more closely at the inventor's psychology as Tarde describes it. For him, inventors are geniuses who stand out from the norm by their intensified occupation with their own mental images as opposed to sensations, indicating a propensity to focus within rather than without. They are furthermore driven by an "*idée fixe* [which] is nourished by a fixed sentiment."[102] They are people who are imaginative, emotional, and intensely driven, even, as Tarde says, "enormously distracted" and "obsessed." Having obsessed over an idea long enough, the genius's "sub-self, incorrectly called the unconscious," aids in the mental effort of invention by providing inspiration.[103] This "sub-self" is a "mass of small auxiliary consciences (perhaps) serving our own," without which, he adds, not a single invention would be explicable.[104] I will return to this

[100] Tarde, *Laws of Imitation*, 79.
[101] Tarde, *Social Laws*, 79.
[102] Tarde, "Invention," 127–28.
[103] Ibid., 128.
[104] Ibid.

passage in Chapter II when discussing invention on the micro-level. For now, we should note that inspiration is a collaboration among the conscious mind and a mass of auxiliary consciousnesses that perhaps suddenly or unexpectedly hand the conscious mind the right solution to a problem after fruitless conscious efforts to find this solution.[105]

Returning to the inventor's obsession with a goal, Tarde apparently does not mean that inventors are obsessed with a need for better satisfaction to which they invent a new means. For one, an invention need not be utilitarian; it can be a theoretical invention, as he explains: "No theoretical discovery is anything but the union, in a judgment, of an attribute (that is, of earlier judgments) with some new subject; and, similarly, no practical discovery is other than the voluntary union of a means (that is, an end formerly desired for its own sake) with a new end."[106] But Tarde holds that for both practical and theoretical inventions, a "special desire" drives the inventor, which is distinct from the desire that would, in the case of practical invention, satisfy the need that stimulated the invention.[107] If this were otherwise, Tarde would not be able to explain theoretical and practical inventions as driven by the same impulse, the "need for either finality or logic." This need is nothing other than a desire to invent which has its origin in the need for unity or harmony.[108] Once inventors notice disharmony between current needs and the means by which they are met, they become motivated to ameliorate it, a tendency Tarde epitomized in his law of logical duels. All individuals must dissolve any perceived internal conflict that arises between opposing ideas, commonly choosing to let go of the one that is less persuasive. But not all individuals perceive internal conflicts, at least not equally strongly.

[105] Ibid.
[106] Tarde, *Social Laws*, 85.
[107] Tarde, "Invention," 131.
[108] Tarde, *Laws of Imitation*, 150.

Inventors strongly feel the conflict within but their awakened state also allows them to observe conflict in others.

While inventions often sound like very serious business in Tarde's explanations, he also observes that it is usually in the context of games, play, or celebration that innovative genius begins.[109] Hence we can perhaps soften the image of the obsessive genius by adding the trait of playfulness. To conclude, then, the psychological conditions of the inventor are a brilliant analytical mind, imaginativeness, strong emotions (which I interpret to mean sensitivity to conflicting ideas), and an obsessive yet playful drive to innovate in order to resolve such conflicts. It is only in an awakened state that the analytical mind can dissect previous inventions into their elements and associate them anew in collaborations inspired by the curiosity for new and different ways of doing things, aided by the sub-self that emerges as a resourceful helper after the innovator's consciousness has sufficiently obsessed over the issue.

c) External conditions of invention

Having examined the psychological conditions of invention, we turn finally to the external ones, the first of which being the frequent occurrence of imitation:

> [A]n invention is, after all, merely the singular intersection of heterogeneous imitations in one brain, an exceptional brain, to be sure; everything that opens fresh outlets to the radiations of different imitations tends to multiply the chances of such intersections.[110]

The more rapidly imitation takes place, the more fodder for their ingenious combination, i.e., an invention. As we have seen, this kind of environment most usually exists in cities where foreign influences come together and where there are a multitude of relations of imitation. As much as Tarde insists that the desire that drives inventions is different from that which is fulfilled by the

[109] Tarde, "Invention," 135.
[110] Tarde, *Laws of Imitation*, 92.

implementation of the invention, he concedes that the thing that satisfies a need stimulates its invention. Hence, in an area where people feel a pressing need that is currently unsatisfied more invention is likely to take place, especially if there has previously been some success with inventions in that area.[111]

Furthermore, Tarde observes that "invention [is] the daughter of leisure and study," indicating that inventions require education and free time.[112] Tarde puts it thus, "It was in play that little by little man learned most of his types of work; development of even the most difficult and least profitable industries tends to make life happier, filling the longer leisure hours with more varied pleasures. Work is a stage to cross between the carefree idleness of primitive peoples and the lively gaiety of future civilized peoples."[113]

Peace and prosperity therefore foster invention, as people have time to focus on grooming their intellectual and artistic abilities. On the other hand, Tarde also says that "antagonistic forces [are] fitted to arouse inventive genius;" in fact he thinks that the only value of opposition among ideas and among individuals is to do precisely that.[114] The reason why times of conflict are not the heyday of inventions is that war, the polemics of the press, parliamentary debate, and other instances of public disagreement are often foolish and stifle genius rather than giving it an opportunity to flourish.

The next external factor to address is the role of chance in invention. Tarde disapprovingly cites Bacon as an example of those who wrongly treat chance and reasoning as mutually exclusive in the process of invention. While Bacon portrays invention as a series of accidental discoveries unrelated to logical development, Tarde argues that chance as well as impulsive

[111] Tarde, "Invention," 137.
[112] Ibid., 129.
[113] Ibid., 135.
[114] Tarde, *Social Laws*, 65–66.

behaviour is not opposed to logic but embedded within the inventive process as one of its essential dynamics.[115] The main reason why chance and impulses direct the genius is that it is often in the context of a game, a celebration, or in alliance with a religion or superstition that inventions first occur, which makes sense to Tarde since inventions make life happier, and that is something we turn our minds to in the context of games and celebrations.[116] He further holds that once chance enters into an invention, its contribution to subsequent discoveries must increase. He points to the invention of the compass as an example of a fortuitous invention that has had indefinite consequences, some of which appear very methodical, such as the subsequent discovery of new lands and their colonialization. He takes this example as evidence that having chance in the mix does not exclude the operation of rational forces as well.[117]

Lastly, and this external factor follows from the definition of invention itself, previously made inventions determine, albeit only vaguely, future inventions because the latter are always a combination of two previously conceived inventions.[118]

To conclude, inventions are solutions to conflicts that are perceived by many, passionately felt and resolved by geniuses who dissect the current means into their elements and, aided by their sub-selves, abandon their imitative, dream-like state to find a new way in which previously merely juxtaposed imitations can be combined into more fruitful collaborations. The chance for an invention to occur is heightened in an environment that supports play and experiment and where there is a wealth of different influences that can inspire invention.

[115] Tarde, "Invention," 134.
[116] Ibid., 135.
[117] Ibid., 138.
[118] Tarde, *Laws of Imitation*, 19.

Chapter II: Imitation and Invention on the Micro-Level

This chapter reconstructs Tarde's account of imitation and invention on the micro-level, where the basic units of social life are no longer individuals but what he calls monads. The challenge here is that Tarde's writings offer no unified or systematic account of monadic imitation; instead, his metaphysical account often relies on analogies that blend sociological, psychological, and metaphysical language. What follows is therefore necessarily interpretive: I draw out the conceptual logic that underpins his remarks and develop a plausible framework for understanding how imitation and invention might operate in the realm of monads. At points, this means reading across texts and importing terminology or distinctions Tarde leaves implicit. Where the interpretation risks overreach, I flag this explicitly. My aim is not to systematize for its own sake but to make usable Tarde's insights for thinking about the mechanics of social change from the ground up.

1) Beliefs and desires on the micro-level

We know from Chapter I that Tarde understands imitation as a social relation. However, despite his explanations in *Laws of Imitation* and many other of Tarde's sociological works, it is imprecise to characterize this relation as holding among *individuals*. Certainly, when sociologists focus on their subjects of study, Tarde would not object to the observation that individuals imitate and that societies are formed as a result. This is actually how he himself describes the formation of societies. Wearing a metaphysician's hat, however, he would say that it is not individuals that do the imitating, as individuals are not what sociologists commonly think they are, namely stable distinct unities that form the elements of societies like tangram pieces forming a square. On the micro-level, individuals do not exist as stable unities that imitate each other's behaviour. Instead, what we commonly call individuals on the macro-level are on the micro-level

nodes that form the intersection of many imitative rays or flows of belief and desire. He calls such nodes monads. Note, however, that human individuals are not the only such monads, nor can individual subjects be directly equated with monads. It is only insofar as individual persons, as commonly understood, are social unities composed of beliefs and desires that they are also monads. The nature of monads and their characteristics will be explored in detail in Chapter III, where I draw a close comparison to Leibniz's monads, a background that proves essential to understanding what Tarde's monads are and what he aims to accomplish by their introduction.

According to Tarde's metaphysics, the fabric of the universe comprises beliefs and desires that imitate each other. Human individuals as such do not play a role in this picture at all. The reason why so much of Tarde's work nevertheless revolves around human individuals and societies is because it is in this context, and this context only, that we are able to observe monads in action:

> We must, however, look to the social world to see monads laid bare, grasping each other in the intimacy of their transitory characters, each fully unfolded before the other, in the other, by the other. This is the relation par excellence, the paradigm of possession of which all others are only sketches or reflections. By persuasion, by love and hate, by personal prestige, by common beliefs and desires, or by the mutual chain of contract, in a kind of tightly knit network which extends indefinitely, social elements hold each other or pull each other in a thousand ways, and from their competition the marvels of civilization are born.[1]

It is only in such a social world of which we ourselves are a part that we can observe firsthand how imitation, innovation and opposition interact in the formation of a society. Sociologists are in the exceptional position of being able to observe their objects of study from up close and even from the inside, a position much different from that of scientists in most other disciplines.[2] In sociology, therefore Tarde can thus with great certainty claim that

[1] Tarde, *Monadology and Sociology*, 56.
[2] Ibid., 37.

> however intimate, profound, and harmonious a given social group may be, we will never see springing forth *ex abrupto* from among its members, to their surprise, a *collective ego* which is real and not only metaphorical, a marvellous outcome of which these individuals would be the conditions. Doubtless there is always one member who represents and personifies the whole group, or else a small number of them (like the ministers of a State) who, each in a different respect, individualize it no less entirely in themselves. But this leader or leaders are always also members of the group, born from their father and mother and not collectively from their subjects or their subordinates.[3]

This often-cited passage is directed against holists such as Durkheim, who holds, as we have seen, that societies are *sui generis* entities whose properties emerge from but are not present in its individual composing elements. Yet Tarde is convinced that the monadology described above applies universally to human individuals and atoms just as much as to stellar or organic bodies. But we are not able to penetrate the atomic level and observe these elements individually, and neither do we have the instruments to gain intimate insight into the behaviour of the stars. Even for the cellular level, while we are able to observe individual cells we are not as intimately familiar with how they work as we are with the social institutions we form among ourselves. We are limited to approximations and hypotheses, to observations from afar. Still, from our direct observations on the societal level Tarde draws conclusions that apply to all of reality.

As we saw in Chapter I, Tarde speaks of fashions, customs, traditions, trends, and rules—really anything that people do that is not a physiological function or reflex but rather a learned behaviour. These are, however, nothing other than manifestations of flows of beliefs and desires. These flows form a dense web or network and where they intersect particular belief and desire pairs are integrated with each other. The relation between the intersecting beliefs and desires is to a greater or lesser degree transitory and unstable. Some beliefs and desires are more persistent than others and able to withstand the integration of new beliefs and desires, while others are short-lived and more easily replaced. The nodes formed by the integration of beliefs and desires

[3] Ibid., 36.

Tarde calls centres of force or, as I have mentioned, monads. We are not able to observe firsthand a monad that is composed of a single belief and desire pair, if there even is such thing. We can only directly observe monads in their role as nodes of countless beliefs and desires, whether in a human individual or a society, both of which are monads in Tarde's sense. The two elements of any monad are belief and desire, whose relation he describes this way: "The true and final object of desire, then, is belief."[4] In other words, a monad combines many beliefs and corresponding desires, including the desire to realize these beliefs, i.e., to make them true. It does so by influencing other monads to imitate its beliefs and in this way spread its influence as far as possible, using a monad under its influence to influence even more monads in turn. The spread of the monad's beliefs is only hindered by every other monad's attempt to do the same with its beliefs.

In order to understand what Tarde means by monads *realizing* their beliefs by bringing other monads under their influence, we need to add his understanding of what truth is:

> The rawest and most vital truth, truth *par excellence*, began as the credo of a small sect, an entirely personal truth accepted because of the other's faith; it has ended up as the impersonal truth of scientific laws. In all these transformations, in all these multiform currents from one society to another, but which are all impossible to reascend given their common slope, we can recognise the irresistible tendency toward the broadening of the social field, the general orientation of history.[5]

We can see that, for Tarde, even scientific truth originates as a personal belief— "the credo of a small sect"—but becomes impersonal by virtue of its successful proliferation. That is, impersonal truth is not something wholly distinct from subjective belief, but the historical result of its wide diffusion and stabilization across a social field.

[4] Tarde, *Laws of Imitation*, 147.
[5] Gabriel Tarde, "Economic Psychology," trans. Alberto Toscano, *Economy and Society* 36, no. 4 (2007): 619.

Likewise for value. There is nothing that has value apart from the subjective value individuals assign to it. Tarde defines value as:

> a quality, such as color, that we attribute to things, but that, like color, exists only within us by way of a perfectly subjective truth. It consists in the harmonization of the collective judgments we make concerning the aptitude of objects to be more or less-and by a greater or lesser number of people-believed, desired or enjoyed. Thus, this quality belongs among those peculiar ones which, appearing suited to show numerous degrees and to go up or down this ladder without changing their essential nature, merit the name "quantity."[6]

Tarde conceives of truth as something entirely subjective and measurable by counting the number of beliefs with the same or relevant content. Truth and value therefore depend on the collective judgment of individuals. Consequently, when a monad is successful in spreading its beliefs across a large number of monads, it thereby makes the belief more and more true, thus making its vision of the universe into reality.

A commonality all monads share is to strive to spread their beliefs as far and as persistently as possible. What Tarde is describing manifests on the macro-level as a mechanism that can be observed everywhere in nature as well as in society. For example, when an invasive species is introduced to a new environment it will take actions that ensure its survival. This is true for a virus entering an organism and it is also the case for a meme going viral on the Internet. For Tarde, what happens on the micro-level are monads' beliefs and desires setting out to achieve their innate goal of self-realization. Since we are not accustomed to speaking of viruses or memes as having beliefs and desires it will eventually be necessary to revisit Tarde's concepts of beliefs and desires in more depth. For now I need only explain his theory of imitation since it is important to understand that beliefs and desires are the force behind all the change in the world. Since we understand monads to be intersections of beliefs and desires, we can say that monads

[6] Bruno Latour and Vincent Antonin Lépinay, *The Science of Passionate Interests: An Introduction to Gabriel Tarde's Economic Anthropology* (Prickly Paradigm Press, 2009), 8, citing Économie psychologique.

are the force of the world, the entities responsible for change, driven by their desires towards realizing their beliefs. Later I show that this way of thinking about monads is a mental crutch because we find it difficult to talk about activity without an *entity* that acts. But in metaphysical rigor, there is only believing and desiring and the imitation of beliefs and desires.

2) Imitation on the micro-level

Each monad enters into relationships with other monads by means of the flows of beliefs and desires that intersect in and thus make up the monad. The relationship that monads enter into with each other is one of imitation, which can be unilateral but more commonly is reciprocal or multilateral. How this imitation occurs is difficult to comprehend on the micro-level where individuals and societies as commonly understood do not exist. Even in *M&S*, Tarde regularly switches to the macro-level to explain how imitation works. It is therefore difficult at times to not revert to anthropomorphic language, for which I beg indulgence. Since Tarde himself does not provide a detailed account of how imitation operates at the micro-level in *M&S*, the following reconstructive account is my own attempt to bridge the explanatory gap between the sociological mechanisms outlined in *Laws of Imitation* and his monadological framework.

a) Logical imitation

Beginning with the logical laws of imitation, we may say that when a monad encounters a new flow of belief and desire, that is, when such a flow intersects with the flows that are already constituents of the monad, the new beliefs and desires are tested for compatibility with the monad's pre-existing flows. If the new flow sits well with the pre-existing ones, it may be adopted, integrated, and passed on, or it may be rejected. In other words, the monad may imitate the new belief or desire or oppose it. The likelihood that a new, incoming belief is successful in taking over another monad is greater the closer the monads are in proximity to one another in the

network of beliefs and desires, where the measure of proximity is the number and strength of shared beliefs and desires already held by the monads. The reason for such success is that proximity in the web of beliefs and desires likely means that the monads' integrated beliefs and desires are already ones that are similar to the incoming influence. A small dissimilarity is more easily overcome and an alliance formed, hence the monads in close proximity are more inclined to take the new variation into their own beliefs and desires, whereas monads that hold very different beliefs and desires are more difficult to induce to imitate incoming belief or desire, making logical duels more frequent. When a monad's flow of beliefs or desires meets with another flow of opposite belief or desire, a conflict or logical duel arises whose outcome may be the slow death of one of the flows due to the dominance of the opponent, which is determined by its greater success in spreading and being integrated into more monads. Alternatively, the less successful flow may combine with yet another flow, leading to an innovative flow which may then be a fiercer competition for the opponent flow.

I interpret Tarde's monadological world view as a sort of network of rays of imitation with each monad being the intersection point of a specific set of beliefs and desires. I suggest that it is this particular set that distinguishes the monad from any other, and that the beliefs and desires held in common by several monads are responsible for these monads forming a society.[7] To stay closer to the textual evidence we have, we should picture the image of the network of rays of imitation as intersecting three-dimensional spheres of action, whose center is the intersection of the rays of imitation coming in from all sides and characterizing the monad uniquely.[8] Supporting my point that it is the shared beliefs and desires that form monads into societies is the following passage:

[7] Tarde, *Monadology and Sociology*, 27.
[8] Ibid.

> The force and extent of the social bonds between members of a society (*sociétaires*) are a function of the number and importance of the types, the negatives, and the models they have in common, for example, the inventions, the old or new individual initiatives from which through imitative propagation they derive their manners of talking—even when they contradict each other—their ways of praying or sacrificing to their gods—even when they curse each other—their modes of work—even when they compete—and their ways of understanding duty—even when they quite dutifully kill each other.[9]

On the question of a monad's uniqueness, Tarde says in *Laws of Imitation* that what makes individuals unique, despite the fact that they all imitate, is the fact that they do not copy one single example but countlessly many, and that the choice among the many models and their unique combination by the individual ensures that no two are alike.[10] We can conclude that the uniqueness of monads arises from their unique combination of different beliefs and desires. Again, since Tarde does not develop this point explicitly in his metaphysical writings, what follows is my own attempt to extrapolate this view using his broader framework.

Logically, this combination of uniquely intersecting beliefs and desires should mean that every time a new belief encounters a monad, that is, a node in the network of beliefs and desires, a *new* monad is formed. To say, therefore, that a new belief is integrated with the monad's pre-existing beliefs means that a new monad is formed which now entails the new belief either substituting for a previously held belief or adding the belief to the set of beliefs previously held. As I hinted at briefly above, since there is nothing more to a monad than intersecting beliefs and desires, there is no persisting entity that tests a new belief for compatibility, at least not on the micro-level. However, in a way it is the set of established beliefs and desires intersecting at that specific point which determine whether a new belief is integrated, and most of them will persist, presumably accounting for continuity of a sort. On the macro-level, as we have seen, Tarde describes this process of testing new beliefs for their compatibility as a conscious or

[9] Tarde, "Sociology," 82–83.
[10] Tarde, *Laws of Imitation*, xxiv.

subconscious process by means of which individuals either fight an internal logical duel as the result of which an appropriate adjustment in their beliefs is made, so that a logical alliance is formed between the old and the new belief, or the new belief is rejected.

b) Non-logical imitation

Some of the non-logical mechanisms deciding the acceptability of two beliefs on the macro-level are more readily translated to the micro-level.

i. First non-logical law of imitation

Recall that the first non-logical law of imitation is that it occurs "from within to without," meaning that individuals first imitate ideas, which are composed of beliefs and desires, before they imitate their expression in behaviour. On the micro-level this is an absolute law, as there is no "without" for beliefs and desires. The beliefs and desires are not manifested in a monad's behaviour; they are imposed on other monads directly.

ii. Second non-logical law of imitation

The second non-logical law says that imitation initially occurs from a superior to an inferior, with superiority characterized by innovative power. I suggest that on the micro-level innovative power is what Tarde calls dominance. Here we must note that monads are not all equally powerful or dominant. In fact, Tarde occasionally speaks of dominant monads having "power over the body,"[11] or "subject[ing] to their yoke and level[ing] with their scythe a people of monads thus subjugated and made uniform, although born free and original, all as eager (*avides*) as their conquerors to dominate and assimilate the universe."[12] However, in one instance in *M&S*, he speaks of monads "submitting to their dominion," of their "exploitation and direction of

[11] Ibid., *Monadology and Sociology*, 66.
[12] Ibid., 27, see also 62-63.

others," and "conquest and ambition," which he assures us "is all metaphorical, of course."[13] Yet the claim that there are dominant or leading monads is repeated often and firmly enough for us to consider it a key element of Tarde's monadology. As we will explore in Chapters III and IV, given the roots of Tarde's monadology in Leibniz's, and given the fact that dominant monads are central to Leibniz's theory, I accept the concept of the dominant monad in Tarde's theory as well. I find this confirmed in the following passages:

> In addition, the facts which have been used to support the hypothesis of unconscious sensibility [which Tarde strongly rejects as a "manifest impossibility"], already striking enough in themselves, also serve to prove general conclusions considerably beyond this. They show that our own consciousness (that is, the directing monads or leading elements of the brain) has as its constant and indispensable collaborators innumerable other consciousnesses whose modifications, external with respect to us, are for them internal states.[14]

> [C]onfining ourselves to positive facts, the formation of each thing by propagation starting from a point is not in doubt, and justifies us in admitting the existence of leading elements (*éléments-chefs*). It will be objected that it is difficult to discover, among the myriad subjects of one of these stellar or molecular, organic or urban States which I imagine, the true master, the founder, centre and focus of these spheres and radiations of similar actions, which are repeated and regulated harmoniously. This is because in reality there exist an infinite number of centres and foci, from different points of view and to varying degrees.[15]

But what exactly is dominance? One possible interpretation is that dominance equates to consciousness. However, as we can see from the foregoing quote's first section, albeit somewhat obscurely, Tarde seems to accept the proposition that the directing monad, which is "our own consciousness," has other consciousnesses "as its constant and indispensable collaborators," indicating that the distinguishing factor between dominant and subordinate monads is not that only the dominant monad is conscious.

We may be able to overcome this objection to the proposition that consciousness is dominance by understanding consciousness to occur on a spectrum with the dominant monad

[13] Ibid., 62–63.
[14] Ibid., 18.
[15] Ibid., 62.

being the most conscious one, where degrees of consciousness are measured by the monad's superior capacity to coherently integrate new beliefs and desires into its existing structure, which in turn enhances its power to propagate these mental states through imitation, thus exerting greater influence over subordinate monads. This is one of the contributions of the second passage quoted above, which makes the link between dominance and formation by propagation, i.e., the formation of societies by mean of spread by imitation, explicit. Furthermore, since Tarde specifically uncouples belief and desire from the requirement of consciousness, it is entirely possible for a monad, which we characterized as an intersection of beliefs and desires, to have unconscious states of mind, i.e., unconscious beliefs and desires, but not sensation.[16] Alternatively, there may be qualitatively different ways in which consciousness manifests.

The second passage, more precisely its first sentence, seems to lend support to the suggestion that dominance relates to innovative power on the macro-level. Tarde says here that the leading elements, the dominant monads, are "the true master, the founder, centre and focus of these spheres and radiations of similar actions," and as a second step responsible for the propagation that leads to the formation of each "thing," which I interpret to mean each belief and desire. Hence, we can interpret him to say that the dominant monad is the superior one whose beliefs and desires spread successfully. As a further consequence, we can understand dominance as responsible for change, the changing beliefs and desires in inferior, or less dominant monads. This seems accurate, particularly because Tarde holds the distinction that is commonly made between movement and consciousness to be unfathomable, as we learn in *M&S*:

> Now, on the one hand, as a result of having been sounded a thousand times and judged unfathomable, the abyss which separates movement and consciousness, object and subject, the mechanical and the logical, has at length been called once more into question, relegated to

[16] Ibid., 18.

> the status of an appearance, and finally denied altogether by the bravest souls, who have been echoed from every quarter.[17]

Interestingly, in *Maine de Biran et l'évolutionisme en psychologie,* which predates *M&S* by four years, Tarde forcefully expresses the opposite view: "Recognize that two things, movement and consciousness, are radically distinct, and, to eliminate the anomaly of their radical distinction, to posit a third reality [namely, force] which we give to them as the only mother, but which we judge, in turn, radically distinct from both, is this not illuminating two obscurities with a third?"[18] I am quite certain that we must interpret Tarde sincerely to hold the view he presents in the passage of *M&S* cited above. I find support for this in a second passage of *M&S* where Tarde proposes the monadological approach as the only plausible way to understand monism and achieve the "desired reduction" of movement and consciousness.[19] I do not believe that removing the abyss between movement and consciousness means that Tarde would want to equate the two.

There might be a way to interpret his position that allows him to say both that we can't reduce a conscious experience, a sensation, to a mechanical process in the brain, and also that the desired reduction of movement and consciousness can be achieved. [20] To solve this difficulty, we first need to learn more about Tarde's monads. Thus, I postpone this discussion to Chapter V when we will have had a chance to examine Tarde's predecessor Leibniz and his monadology, which I believe holds the key to this problem. For now, it seems unlikely that we are far wrong to take Tarde to suggest that consciousness is responsible for change, as he contends that inert

[17] Ibid., 5.
[18] Gabriel Tarde, *Maine de Biran et l'évolutionnisme En Psychologie*, ed. Éric Alliez, with Anne Devarieux (Institut d'éd. Sanofi-Synthélabo, 2000), 69.
[19] Tarde, *Monadology and Sociology*, 15.
[20] Tarde, *Maine de Biran*, 60–61.

matter could not explain why change would exist; some form of spirit is required.[21] So, a monad's dominance, consciousness, and agency are closely correlated.

There is textual evidence suggesting that not all monads are agents.[22] This further supports the proposed hypothesis of relating dominance to agency, given that not all monads can be dominant, which would not leave any monads to be dominated. Nevertheless, just as we observed above that consciousness may occupy a spectrum, most pronounced in dominant monads and least in subordinate, we may also have to accept that there are more or less dominant monads.

Being less conscious than the (most) dominant monad in no way diminishes the contribution subordinate monads make. Their essential role becomes clear when Tarde says:

> From our point of view, what is signified by the great truth that every activity of the soul is linked to the functioning of some bodily apparatus? It comes down to the fact that in a society no individual can act socially, or show himself in any respect, without the collaboration of a great number of other individuals, most of them unknown to him. The obscure labourers who, by the accumulation of tiny facts, prepare the appearance of a great scientific theory formulated by a Newton, a Cuvier, or a Darwin, compose in some sense the organism of which this genius is the soul; and their labours are the cerebral vibrations of which this theory is the consciousness. Consciousness means in some sense the cerebral *glory* of the brain's most influential and powerful element. Thus, left to its own devices, a monad can achieve nothing. This is the crucial fact, and it immediately explains another, *the tendency of monads to assemble*.[23]

Going back to the second non-logical law of imitation on the macro-level, we can translate Tarde's comments on dominant monads and consciousness into that framework. We learned that Tarde understands prestige as the ability to exploit existing discoveries and inventions and render them productive. In this passage Tarde suggests that prestige on the macro-level is consciousness on the micro-level of the monads. The conscious monad makes ingenious use of other monads'

[21] Tarde, *Monadology and Sociology*, 12.
[22] Ibid., 54.
[23] Ibid., 34.

labour to establish itself as the most influential element, which, on the other hand, entirely depends upon the infinite number of subordinate monads with which it assembles.

On the point of how rendering inventions productive relates to dominance, we can say, albeit with less direct textual evidence, that a dominant monad which has formed an ingenious new idea has likely done so by reconciling previously conflicting beliefs, a conflict which other monads may experience as painful. These other monads may then imitate the new idea, which relieves them of this conflict. One might say that the imitative ray emanating from the dominant monad is extraordinarily strong because of its utility for a great number of monads.

With regard to how influence and connectedness relate to dominance, we can say that a monad that it is already well connected with many other monads by means of shared beliefs and desires, can make innovative use of the work of the many laborers with which it is connected. It is therefore a central node in a dense network which allows the dominant monad to reach far into the network with its new idea. After all, a monad's reach is extended by means of the monads that come under its influence and that then carry the imitative ray to the next monad and so forth.

iii. Third non-logical law of imitation

The third non-logical law of imitation is the most difficult to translate into the micro-level framework. Recall that this law says that sometimes long-standing customs and at other times fleeting fashions are most likely to exert their influence over individuals. The difficulty is that Tarde does not tell us much about the temporal dimension of the monadic network. He draws no distinction between the influence of "contemporary" monads versus a monad's ancestors. The reason is that he grants no reality to time independently of some monad's successful design and project.[24] I do not wish to make the kind of detour a thorough exploration of Tarde's theory of

[24] Ibid., 27.

time would require, but there is still something to be said about the fleeting nature of fashion and the persistence of customs. The hold of custom can be explained by mean of the quality of the relations formed among monads that share in the belief or desire that makes up the particular custom. To explain this properly I have to insert a brief explanation about the two kinds of bonds that beliefs can form, on which I follow the insightful interpretation of Didier Debaise.[25]

Beliefs are the links that connect individual monads and are responsible for forming into a society what would otherwise be a mere aggregate of monads. A belief is also a link that takes place inside a monad holding together all the other beliefs comprising the monad. The beliefs a monad holds constitutes its reality, which is a unique combination of beliefs that makes each monad distinct from every other. This reality is not something the monad invents on its own. Instead, a multitude of influences deriving from many other monads condition these beliefs. As I mentioned, it is not the content of a belief that makes a monad unique, as every belief is shared or will be shared by a multitude of other monads. It is the combination of many different beliefs that makes a monad unique. These different beliefs are held together within the monad by a belief or several beliefs that are able to form the multitude into a harmonious worldview.

I return now to the third non-logical law of imitation and my explanation of why beliefs which happen to form a macro-level custom ("custom-belief") are more persistent than fashion-beliefs. The imitative relation that sustains a custom-belief is likely to be one affirmed by a great number of other beliefs that are also shared by the same monads. Breaking with a custom would untether this bond and the monad would cease to belong to the particular society of monads that incorporate this custom-belief and through it are linked together. The loss of that bond would mean the monad loses its network of sympathetic monads, which it depends on for the

[25] Didier Debaise, "The Dynamics of Possession - An Introduction to the Sociology of Gabriel Tarde," in *Mind That Abides: Panpsychism in the New Millennium*, ed. David Skrbina, trans. Arnaud Coolsaet (John Benjamins, 2009).

promulgation of its own beliefs and desires. Furthermore, the custom-belief also has strong links within the monad itself. Its affirmation occurs by means of numerous successful logical duels fighting off incompatible beliefs and by logical alliances formed with beliefs that are compatible with the custom-belief. Hence, letting go of a custom-belief would mean considerable disturbance.

In contrast, a fashion-belief, which is often imitated in accordance with the second non-logical law of imitation (following a prestigious example in those cases where no conflict with previously held beliefs exists), does not experience the same kind of affirmation (although it affirms the pre-existing beliefs) and hence is more easily dropped in light of another competing fashion to which the monad is introduced. Furthermore, the external links formed with other monads that follow the fashion-belief are not particularly strong because the fashion-belief only piggy-backs on a number of other beliefs held in common with other monads, without forming the basis for any shared beliefs.

3) Invention on the micro-level

Tarde says regrettably little about how monads innovate, aside from the monads that are human individuals. Again, human individuals are the only examples of monads that we can observe directly and at first hand, so this comes as no surprise. However, given Tarde's insistence that his monadology is universally applicable, and given that he is otherwise not shy to speculate, a hint as to how he conceives of invention on the micro-level would have been appropriate. He does mention in passing and not very clearly that the evolution of biological forms are inventions on his account, and he mentions what he calls "cellular inventions," though without explaining what those are.[26] Only once does Tarde mention that "infinitesimal germs"

[26] Tarde, *Monadology and Sociology*, 13, 22.

(presumably denoting monads) are "a treasury of admirable inventions."[27] In this section I attempt to explain innovation in the terminology of Tarde's monadology, while trying to avoid as much as possible the anthropomorphic tone that is at times unavoidable.

First, it may be helpful to remark that invention, the combination of pre-existing imitations, is not the same as forming logical alliances, which are one form that imitation can take. A logical alliance occurs when a monad encounters a new ray of imitation emanating from another monad which aligns well with a pre-existing ray of imitation. An alliance is thus formed when new and pre-existing rays do not logically contradict each other and may even affirm a further imitation that the monad has incorporated into its worldview. An invention, on the other hand, while also a combination of former imitations, gives rise to something novel. It is not an alliance, two rays of imitation side-by-side, but rather an entirely new ray of imitation. Two imitations are combined in order to fulfil a desire in a novel way or to fulfil an entirely new desire, which a logical alliance does not do, there being no common desire that both allies combine to fulfil.

Let me briefly address the distinction we drew in the first chapter between true innovations and mere variations. Now that we have established monads as the intersecting points or rather spheres of different rays of belief and desire I am in a better position to explain Tarde's assertion that minute and mostly trivial innovations, which we have termed variations, occur every time a monad imitates. Assuming, as I think we must, that even a variation is a combination of two or more imitations, I take it that one of those two is the new ray of imitation, with the others being the monad's existing beliefs or desires. To integrate the new ray of imitation into the monad's existing belief system may require a slight modification to the incoming ray. One possible variation the monad may undertake involves the degree to which it embraces the new belief or

[27] Ibid., 62.

feels the new desire. The gradual change would be informed by all the monad's other beliefs or desires, which may affirm the newcomer more or less strongly. Alternatively, the variation may be qualitative, when for example, a monad is exposed to a new and fashionable word which it imitates but pronounces slightly differently.

Thirdly, it will be fruitful to revisit what we noted in Chapter I regarding invention on the macro-level being aided by what Tarde called the "sub-self." It makes sense to quote this passage again in full, which allows us to determine whether the apparent tensions that arise with what we said earlier about Tarde's account of dominant conscious monads can be resolved.

> When the self is absorbed in a goal for a long time, it is rare that the *sub-self*, incorrectly called the unconscious [*l'inconscient*], does not participate in this obsession, conspiring with our consciousness [*conscience*] and collaborating in our mental effort. This conspiracy, this collaboration whose service is faithful yet hidden, is *inspiration*, which remains no less mysterious even when we remove the myths concerning it. Without the continual activity of this internal hive, of this mass of small auxiliary consciences (perhaps) serving our own [*de cette foule de petites consciences (peut-être) auxiliaires et servantes de la nôtre*], not one single phenomena of even the most ordinary intellectual life, not one association of ideas recalled at the opportune moment, remembered just in time as if by some invisible and infinitely diligent librarian, could be explained. But there are times when the help given to the self by the sub-self surprises us by its abundance, by the importance of its results, or by the sudden solution it brings to problems whose solutions have been sought in vain for days and months. Poets in such cases say they are *inspired*; scholars and engineers would have just as much right to say so — and that is one of the reasons why the inventor's work cannot be confused with work as such, with the tasks of a worker, in which there is no noticeable collaboration of the unconscious [*l'inconscient*]. [28]

Note that while first claiming that the sub-self is "incorrectly called the unconscious," and calling it "a mass of […] consciences" instead, Tarde himself uses the term unconscious in the last sentence, remarking that the task of a worker, as opposed to an inventor, is not aided by a "collaboration of the unconscious." Given the background we discussed about the meaning of consciousness in Tarde's theory as expressed in *M&S*, and assuming that the sub-self of the

[28] Tarde, "Invention," 128.

above passage is the same as the laborer monads we have encountered in *M&*S, then the elaborations on the sub-self seem to affirm that the laborer monads are indeed not conscious to the same degree as the self.

We also see confirmed in the passage on the sub-self that the services of the collaborating helper are very valuable and point at times to notable mental ability. Similarly, in *M&S*, Tarde adds that the laborers cannot easily be judged as inferior, as we have also remarked in the foregoing section:

> Let us also observe that the obscure labourers I mentioned above may sometimes have as much merit, erudition, and force of thought, as the celebrated beneficiary of their labours, or indeed even more. If the ego [*le moi*] is only a director monad among the myriads of commensal monads in the same skull, why, fundamentally, should we believe the latter to be inferior? Is a monarch necessarily more intelligent than his ministers or his subjects?[29]

We can thus say that dominant monads are conscious by virtue of their dominance, without necessarily adding anything to their intelligence that would distinguish them from the dominated monads. The dominated monads' conscious state is uncertain, but they do have beliefs and desires and play an important role in invention as well.

Let's see what this role may be. One possibility is that the laborer monads also make inventions, which would explain why Tarde considers them to be intellectually on par with the dominant monad. After all, he insists that inventions require an unusual mind, a genius. A difficulty for this interpretation, however, is that inventions supposedly take place only rarely. This claim stands in slight tension with the important role played by the "great number of other individuals" whose collaboration makes the "cerebral glory" of consciousness possible, as the contributions of a great number of people supposedly add up to a similarly great number of

[29] Tarde, *Monadology and Sociology*, 34–35.

innovations.[30] If many inventions can be said to prepare for or aid some notably ingenious invention, then such ingenious inventions would not be rare events. These two aspects of his theory cannot be reconciled by interpreting the laborer monads as innovating only in the sense of minutely *modifying* what they imitate. It is unlikely to be due to this very common event that Tarde ponders the possibility of these monads being intellectually on par with the dominant monad. More plausibly, he is speaking on two different levels when he says that true innovations are rare—relative to imitations—yet there are a great number of them that contribute to, say, a great scholarly or engineering work.

Let's see what else Tarde says about inventions. He defines invention as "a question followed by an answer. But for each question set a thousand answers are possible, of all possible degrees of completeness and exactness."[31] It seems possible that the valuable service non-dominant monads contribute is to provide a similar but somewhat less complete or exact answer to one of these questions, which the dominant monad improves, rendering the less valuable ones superfluous and forgotten. In this case, the laborer monads might be considered to be inventing, but their inventions would be less valuable than that of the dominant monad from the perspective of history. Recall also that value or truth "consists in the harmonization of the collective judgments we make concerning the aptitude of objects to be more or less—and by a greater or lesser number of people—believed, desired or enjoyed."[32] Given the subjective nature of value and the many factors that influence which idea or theory wins the most support, the proposed interpretation of the role helper monads play is not necessarily in tension with their stated

[30] Ibid., 34.
[31] Tarde, *Social Laws*, 91.
[32] Latour and Lépinay, *The Science of Passionate Interests*, 8, citing Tarde's Economic Psychology.

intelligence, which measures up well against that of the dominant monad. Just because the answer of the laborer monads does not "win" does not mean that it was less skillfully invented.

A further avenue of interpretation opens up when we move away from the anthropomorphic reading of the passage from *M&S* we have been discussing, leaving to the side, for a moment, his mention of ego, brains, skulls, and renowned scientists. Let's instead focus on the passage I underscore:

> The obscure labourers who, by the accumulation of tiny facts, prepare the appearance of a great scientific theory formulated by a Newton, a Cuvier, or a Darwin, compose in some sense the organism of which this genius is the soul; and their labours are the cerebral vibrations <u>of which this theory is the consciousness</u>. Consciousness means in some sense the *cerebral glory* of the brain's most influential and powerful element.[33]

If we take this seriously, it follows that the theory is the consciousness, the dominant monad, and that the many facts supporting it are the laborer monads, which is a very different picture. We wouldn't struggle so much with the idea that the helper monads are somehow dominated by, yet not inferior to the leading monad. Their contribution would no longer be a mystery either, and the tendency of monads to assemble becomes clearer too, since a theory can form only after many facts have been gathered, analysed, and brought into harmony. And what role does Newton's ego or brain play? Both are assemblages of monads formed into a society by their most dominant, glorious element. The theory uses the man, ego, or brain to ensure its dominance by spreading throughout society. This interpretation finds support in a passage from *Social Laws*:

> One thing, however, must be granted to the opponents of the theory of individual causes in history; namely, that writers have frequently made the mistake of speaking of great men when they should have spoken of great ideas, which often appear in very unimportant men, or of the trivial ideas and infinitesimal innovations contributed by each of us to the common work.[34]

[33] Tarde, *Monadology and Sociology*, 34.
[34] Tarde, *Social Laws*, 87–88.

To return, then, to the question of how monads invent: while Tarde does not give a systematic account of this on the micro-level, we can attempt to reconstruct one from the resources he provides. Invention, on this view, does not originate in a unified agent but in the dynamic interplay of beliefs and desires—what we might describe as a dense moment of relational tension that gives rise to a novel configuration. The monad is simply the intersection at which these pressures converge; it is not the originator in any substantive sense. Dominant monads may play a role in organizing and propagating such configurations, but the conditions that allow for invention are distributed, not proprietary. Tarde's metaphysics thus allows for a concept of invention that does not depend on stable entities. This supports well what I have thus far insufficiently explained, namely that monads are merely hypothetical entities that we use to explain change, but that it is beliefs and desires that are the actual actors. I address this conception of the monad in the following chapters, after setting the stage with the much-required background of Leibniz's monadology.

Chapter III: Leibniz's Monadology and Tarde's

In this chapter I trace Tarde's understanding of Leibniz's monadological metaphysics insofar as this is relevant to grasping Tarde's overall argument. My aim is not to assess the historical accuracy of Tarde's reading by the standards of Leibniz scholarship, current or prevailing at the time of Tarde's writing. Instead, I examine how Tarde presents Leibniz—whether he explicitly states that he is expanding on Leibniz's monadology or diverging from him, and what insights he believes himself to take from Leibniz, although I do call Tarde out on several rather obvious misrepresentations. I investigate the specific Leibniz texts that Tarde references and which were available to him at his time, considering that Tarde did not have access to the same curated collection of Leibniz's works as contemporary scholars. I thus aim to shed light on the nature and depth of Tarde's engagement with Leibnizian philosophy.

Not until the next chapter will I compare Leibniz's monads to Tarde's in detail and explain the differences, which mainly derive from the fact that Tarde remodeled Leibniz's monads to perform somewhat different functions. The present chapter lays the foundation for this comparison, focussing on those characteristics of Leibniz's monads that Tarde knew (or thought he knew) and that are relevant for understanding Tarde's theory. I leave out the notions of force and substance, which are a theme of Chapter IV.

1) Overview of Commonalities and Disagreements

Although it is not the main focus of this chapter, starting with an overview of the main points Leibniz and Tarde share or disagree on sets the stage for the following discussion of the sources Tarde had available and drew inspiration from for his interpretation of Leibniz. Hence, I begin with a brief summary of where Tarde and Leibniz agree and disagree, which I further expand on in Chapters IV and V.

Leibniz and Tarde share the conviction that Descartes's mind-matter dualism is untenable. For Leibniz, this is chiefly because Descartes's mindless matter cannot account for why matter moves or resists motion. Leibniz's solution is to introduce monads as a combination of active and passive forces, an idea that features in Tarde's monadology as well. Leibniz and Tarde both take active and passive forces to address a criticism they raise against Descartes that all the different and seemingly purposeful forms of matter and their harmonious interplay seem to demand a teleological explanation that requires the kind of spiritualization of matter that monads introduce. They partially agree on a second important characteristic of monads, namely that they contain (a representation of) the entire universe within themselves though from a unique perspective, which means that no two monads can be identical. However, the two philosophers disagree on what exactly it means for the entire universe to be contained within each monad. For Leibniz, it is merely a *representation* of the whole universe that each monad contains while Tarde does not make such a qualification. Secondly, Leibniz requires a harmony among all monads pre-established by God, while Tarde assumes that each monad really interacts with every other.

Furthermore, Leibniz famously tried to resolve the paradox that apparently arises from the infinite divisibility of matter and motion. Their divisibility means that they are not substances, as substances are by definition not composite; they are indivisible. Monads are metaphysical unities rather than material ones. The indivisibility of such substances is due to their continued activity as forces. Matter, though sometimes regarded as a substance, is for Leibniz not truly one, since it is composite; motion, by contrast, is not a candidate for substance at all, but a phenomenon that, like matter, results from the activity of genuine substances—monads. What is real about them are the substances from which they are aggregated, because only indivisible substances are real. This

idea is rooted in the Aristotelian theory that a true substance is not dependent on or reducible to something more fundamental, as divisibility would imply some degree of dependence. In positing a plurality of such indivisible beings, Leibniz breaks with the Eleatic strand of ancient ontology, most notably represented by Parmenides, which holds reality, or being, to be simple, indivisible, unchanging, and eternal *and that there can* be *only one such being*.[1] Leibniz agrees with the simple, indivisible, unchanging, and eternal nature of being but also believes that there are infinitely many such beings. While Tarde almost entirely disregards Leibniz's notion of monads as substances, he agrees with the theory of the multiplicity of nature. In fact, among the aspects of Leibniz's philosophy that Tarde highlights with particular approval in *Maine de Biran* is his affirmation of a multiplicity of beings—a stance that places him, like many of his contemporaries, in the monadological rather than monist tradition.[2] This diversity, compatible with simplicity understood as partlessness, allows for infinitely complex relations with all other beings as well as for changes of state. It is thus arguably the main condition for Tarde's metaphysical account of possession.[3] I take up this influence in greater detail in Chapter V.

Their most notable disagreement is that Tarde's metaphysics contains no notion of God, whereas Leibniz relies on the divine hand playing an all-important part. Tarde also diverges from Leibniz in his approach to unity and multiplicity. For Leibniz, real existence is found in individual monads, which are true unities and indivisible substances. Tarde, on the other hand, sees reality as fundamentally relational, composed of diverse processes whose unity is merely perceived and depends on the observer's perspective. Where Leibniz identifies real unity solely

[1] W. K. C. Guthrie, *A History of Greek Philosophy - The Presocratic Tradition from Parmenides to Democritus*, II (Cambridge University Press, 1962), 15–16.
[2] Tarde, *Maine de Biran*, 66.
[3] Didier Debaise, "The Dynamics of Possession - An Introduction to the Sociology of Gabriel Tarde," in *Mind That Abides: Panpsychism in the New Millennium*, ed. David Skrbina, trans. Arnaud Coolsaet (Amsterdam: John Benjamins, 2009), 222.

with monads, Tarde posits that any case of what we call unity dissolves into multiplicity when examined from different viewpoints. Furthermore, Tarde describes not just bodies but monads themselves as ever-changing, transitory relationships. For him, then, monads are not unities but totalities.[4] They are fundamentally open systems that actively participate in an ongoing process of mutual influence and adaptation, and more than that, the monads are dynamically constituted by their relations to all others. One may thus say that each monad forms one unity with all that there is, but they are not self-contained entities that depend on nothing outside themselves or that are defined by their internal qualities only. They are a totality by virtue of the fact that they *are* the sum of relations they hold with everything else. More precisely, I follow Debaise's interpretation of Tarde's monads as the point where beliefs and desires intersect.[5] Leibniz's monads, by contrast, contain in themselves a *representation* of the entire universe but without one monad ever influencing another.

However, that does not prevent Leibniz from establishing a hierarchy of monads, with the dominant monad being the soul of an organic body and subordinate monads actualizing the body's parts and contributing to the goal of the dominant monad, which is to realize its internal program by functionally integrating the activities of its subordinate monads, thereby contributing to the overall perfection of the universe. Tarde follows Leibniz on this point, yet he understands domination more actively in that the dominant monad exercises an influence over subordinate monads, where Leibniz saw a pre-established harmony at play, the real connection among all things being established not by mutual influence but by God.

The last section of this chapter is dedicated to the theme of continuity, which is a central issue in Leibniz's philosophy though less central to Tarde's but still requiring some account due

[4] Tarde, *Monadology and Sociology*, 58.
[5] Debaise, "The Dynamics of Possession," 225.

to its close ties to the concept of infinite division. In the next chapter, I discuss the concepts of force, substance, and consciousness and how Tarde both draws upon and diverges from Leibniz on these points, which are central to my thesis on Tarde's monads as hypothetical entities introduced to explain movement.

It is not easy to compare Leibniz and Tarde. For one, neither of them wrote a comprehensive treatise about their philosophical system; Leibniz's ideas are scattered throughout a great corpus of writings on a myriad of topics while for Tarde, as we have seen, he is far from writing with consistent analytical rigor, seeming at times more interested in stimulating his reader's philosophical imagination than convincingly explaining his position. Comparison is also hampered because the motivation for these two thinkers to develop a monadology importantly differs. While both are searching for the ultimate constituents of reality, Leibniz focuses on how monads allow him to escape what he calls the "labyrinth of the continuum." For Leibniz, continuity is an ideal notion, an abstraction that represents an unbroken whole. Despite what our perceptions might suggest, as when we see (or think we see) a continuous motion or a continuous body, anything composed of aggregates is in actuality necessarily discrete. Yet true unity exists. Monads possess intrinsic unity and by virtue of this, reality. Aggregates are only relatively real, deriving reality from the monads of which they are aggregates, but which do not compose the body as parts compose a whole. Thus, monads provide Leibniz with a framework for understanding true unity, separate from the merely perceived phenomenal unity of aggregates.

Tarde, on the other hand, while claiming to meet "in the simplest way possible […] the fundamental objection made to any atomistic or monadological attempt to resolve the continuity of phenomena into an elementary discontinuity," simply denies continuity as well as unity,

paying little attention to the conundrum that lies at the heart of Leibniz's metaphysics.[6] The monads each of these thinkers introduce are thus very different, with Leibniz's monads all harmoniously interrelated but not interacting and Tarde's interacting but socially rather than through contact or the exchange of energy. As a result, Leibniz's monads are impenetrable, indivisible mind-like entities and the ultimately real substances, while Tarde's are hypothetical entities invented to explain what is ultimately real, namely relations of imitation.

2) Leibniz texts available to and referenced by Tarde

This section briefly describes the direct and indirect references Tarde makes to Leibniz in his works without offering detailed interpretations at this time. The purpose is rather to elucidate what Tarde can be said to have known of Leibniz and whether he incorporates Leibniz's ideas into his own theory or rejects them.

The main works in which Tarde engages with Leibniz's metaphysics explicitly are *M&S* and *Maine de Biran et l'évolutionisme en psychologie* (hereafter *Maine de Biran*).[7] The latter is a reflection on, among other works, Pierre Maine de Biran's *Exposition de la doctrine philosophique de Leibnitz*, which Tarde explicitly mentions.[8] There is a complication that goes beyond the straightforward issue of interpretation through multiple layers to relying on Tarde's book about Maine de Biran's exposition on Leibniz for insights into how Tarde understood the latter. As we learn from Dunham, Maine de Biran has an agenda when he portrays Leibniz as he did in the *Exposition*. Dunham argues that Maine de Biran's criticism of Leibniz intentionally uses him as a strawman to critique Victor Cousin instead, and that the arguments Biran brings

[6] Tarde, *Monadology and Sociology*, 27.
[7] Tarde, *Maine de Biran*. All following quotes from this text are my own translations.
[8] Pierre Maine de Biran, *Exposition de La Doctrine Philosophique de Leibnitz, Composée Pour La Biographie Universelle* (L. G. Michaud, 1819).

forward do not touch Leibniz at all.[9] We thus face the situation in which we learn about Tarde's interpretation of Leibniz through a work Tarde writes on an author who wrote about Leibniz, but who apparently made arguments against Leibniz's metaphysics to disguise his criticism of Cousin out of fear of a direct confrontation.

Still, from *M&S* and *Maine de Biran* we can draw some conclusions about the Leibniz texts that Tarde read. Although Tarde does not explicitly say so, it is rather obvious that he is familiar with the *Monadology.* Aside from that, we can conclude from *Maine de Biran* that he read *New Essays on Human Understanding*, as it appears in one of Tarde's footnotes and because Tarde demonstrates close familiarity with the topics discussed therein. To the footnote the editor adds that Tarde undoubtedly consulted *Nouvelles Lettres et Opuscules de Leibniz*, ed. Foucher de Careil, 1857, without telling us how she arrived at this insight. Since I could not find any direct evidence to support this claim, or any clues to how deeply Tarde may have engaged with this work, I disregard it.

In addition, Tarde also read some letters that Leibniz presumably addressed to Bossuet. I have to say "presumably" because Tarde references these letters twice, once referring to a letter addressed to "Bonnet" (presumably meaning Charles Bonnet, a natural philosopher who was inspired by Leibniz) and a second time referring to Bousset. The editor of *Maine de Biran* indicates after the Bonnet reference that Tarde mistakenly refers to Bousset as Bonnet, which makes sense as Leibniz did not have correspondence with Charles Bonnet, given that the latter wasn't born until four years after Leibniz's death.[10] Regrettably, the editor does not provide further indications as to which letters in particular Tarde is referring to, and further research was

[9] Jeremy Dunham, "A Universal and Absolute Spiritualism, Maine de Biran's Leibniz," in *The Relationship between the Physical and the Moral in Man*, ed. Darian Meacham, trans. Joseph Spadola (Bloomsbury Academic, 2016), 182.
[10] Tarde, *Maine de Biran*, 100.

not successful in clarifying the matter. The letters from Leibniz to Bousset do not appear to be remotely about the issues Tarde relies on them to discuss. However, since Tarde quotes a few passages directly from Leibniz's letters, there is a way to confirm with some certainty whether the view Tarde ascribes to Leibniz drawing from these passages aligns with what I could confirm Leibniz to have said elsewhere.

These few are the only resources available that illuminate Tarde's Leibniz sources. Even in the chapter in *The Anthem Companion to Gabriel Tarde* dedicated to Tarde's manuscripts and library, there is no mention of whether the authors found Leibniz's work on Tarde's shelves.[11] However, the following summary of the topics Tarde specifically connects with Leibniz's philosophy in *M&S* and *Maine de Biran* demonstrates that Tarde's known exposure to Leibniz's works suffices for the claims he makes about Leibniz, while I can at the same time attribute certain misunderstandings in his interpretation to a somewhat limited access to Leibniz's writings.

a) Leibniz References in *M&S*

Starting with *M&S*, the later of the two works, we learn to no one's surprise that Tarde credits Leibniz with being the father of the monads.[12] In the same sentence, Tarde also makes it clear that he does not build his own monadology on Leibniz's but considers the modifications other authors (including, for example, Charles Renouvier who affirmed real interaction among monads)[13] have introduced as important developments that he endorses for his own theory. The most important divergence from Leibniz's monadology is that Tarde vehemently dismisses as "unintelligible" and an "embarrassment" the closure of Leibniz's monads and the pre-established

[11] Robert Leroux, ed., *The Anthem Companion to Gabriel Tarde* (London: Anthem Press, 2018), chap. 11.
[12] Tarde, *Monadology and Sociology*, 5.
[13] Charles Renouvier and Louis Prat, *La Nouvelle Monadologie* (A. Colin et Cie, 1899), 6–7.

harmony he invokes to explain the apparent and lawful interaction of bodies.[14] Tarde expresses his hope that science will progress towards a "renewed monadology" with interpenetrating monads, which he sees as the key resolving all the "mysteries" Leibniz's monadology introduced. On a single page that immediately follows this criticism, Tarde paints a broad picture of his vision of a revised science and metaphysics, characterizing monads as interpenetrating spheres of action, and as "a *universal medium* [*milieu universel*] or aspir[ing] to become one, a universe *in itself*, not only, as Leibniz wished to argue, a *microcosm*, but the entire cosmos vanquished and absorbed by a single being." He thereby resolves space into "particular spaces and domains," time into "multiple realities and elementary desires," and grounds natural laws in "known realities," namely, the triumphant monads that "desired" these laws. Finally, Tarde declares that the opening of monads to each other and their interaction solves the continuity conundrum that troubled Leibniz, as it allows Tarde to find the source of monadic continuity in the "ultimate discontinuity" of their elements.[15] I return to this complex argument in detail in the following sections as well as in the next two chapters.

Later in *M&S*, Tarde adds to the subject of "elements," which we can for now equate with monads, regarded as *milieux universels*, that in light of each being different from every other they should not merely be understood as totalities but as "a certain kind of virtuality."[16] Here, Tarde expands on the idea that each element has a particular vision of what the cosmos should be like and strives to make it a reality, though rarely successfully, given the competition of all other elements trying to realize their own different vision. In this context, Tarde simply mentions that Leibniz's monads, too, are diverse, likely referring to §§8-9 of the *Monadology*. Tarde addresses

[14] Tarde, *Monadology and Sociology*, 26.
[15] Ibid., 27.
[16] Ibid., 58.

this point of agreement between Leibniz and himself in more detail in *Maine de Biran* as we will see later on.

This much already shows that while using Leibniz's monads as a starting point, Tarde does not claim that his monadology agrees with that of Leibniz. Instead, he is explicitly critical of aspects of Leibniz's concept of the monad and diverges from him in important ways.

There are three further references to Leibniz in *M&S* which concern the characteristics of monads less directly but nevertheless touch upon central topics in both authors' philosophies. The first concerns the question of mind-matter dualism and gives some insight into how Tarde understands Leibniz's position. In the relevant passage, Tarde contrasts "Leibnizian spiritualism" with "vulgar spiritualism."[17] This so-called vulgar spiritualism stipulates a vital principle distinct from matter whereas Leibniz's "most daring promises" are fulfilled by the monads, which are, he thinks, the logical conclusion to which the negation of a vital principle distinct from matter leads us. In other words, we learn that Tarde holds Leibniz to be a spiritualist, but one who places spirit within matter, as opposed to locating it somewhere outside. The rejection of mind-matter dualism is a point of agreement between Tarde and Leibniz, but with important nuances that I flesh out later.

The second direct reference to Leibniz concerns the infinitely small and the fact that Leibniz, according to Tarde, was inspired by the "profound conviction" that "[t]he source, reason, and ground of the finite and separate is in the infinitely small, in the imperceptible."[18] Here, too, the two philosophers agree in principle, though Tarde seems to interpret Leibniz's infinitesimals as "tiny beings" whereas Leibniz considers them mere fictions. This may be Tarde's conscious divergence, as Leibniz's position should have been familiar to him, given that Leibniz discusses

[17] Ibid., 7.
[18] Ibid., 9.

this explicitly in *New Essays on Human Understanding*.[19] In any case, Tarde does not say that his interpretation of infinitesimals as tiny beings is a divergence from Leibniz, so it is possible that Tarde either misinterpreted Leibniz in this respect or that he knew he was not in line with Leibniz on this point but didn't make it explicit (I say more about this in section 5 of Chapter V).

Tarde's last remaining mention of Leibniz in *M&S* concerns his theory of force. This is particularly noteworthy as it is not a topic Leibniz discusses in the *Monadology.* But since it is a rather vague and convoluted reference, I mention it here only briefly, with further details on this topic to be added once I turn to *Maine de Biran*, as Leibniz's theory of force receives much more attention in that context. Tarde claims that the then-current theory of evolutionism (he probably means Herbert Spencer) attempts to renew a Spinozian concept of substance, a monistic one where mind and matter are attributes of the one substance which is God. Tarde then notes that this monism, which he considers to underlie evolutionism, "pushes to its limit the Leibnizian idea of force."[20] In the sentence immediately following this one, Tarde suggests that "the idea of force leads naturally to the idea of substance" and that both materialists and idealists have sought refuge in the idea of substance, turning away from phenomenalism. When asking who is right, materialists or idealists, he suggest that we consider the possibility that they both are right. It appears possible that Tarde sees Leibniz's ideas as transcending a simple dichotomy between idealism and materialism instead contributing to a synthesis or reconciliation of these viewpoints in the quest for a more comprehensive understanding of the universe. Tarde appreciates the flexibility that he sees in Leibniz and draws inspiration from it for his own social theory based on interconnectedness. Again, the role force plays in the context of the discussion of substance

[19] Gottfried Wilhelm Freiherr von Leibniz, "Of Ideas," in *Leibniz: New Essays on Human Understanding*, 2nd ed., ed. Jonathan Bennett and Peter Remnant (Cambridge University Press, 1996), para. 157, Cambridge Core.
[20] Tarde, *Monadology and Sociology*, 20.

becomes clearer when I turn to *Maine de Biran* and its revelations on how Tarde read Leibniz in Chapter V.

This concludes my summary of Tarde's Leibniz references in *M&S*. Except for Tarde's mention of Leibniz's theory of force, he appears to rely exclusively on the *Monadology*. We have learned so far that Tarde takes Leibniz to advocate for a particular kind of spiritualism, one that negates the dualism of mind and matter; that he relies on infinitely small and diverse elements as the source of and reason for the finite; and that Tarde associates Leibniz with an idea of force that results in a theory of substance that integrates materialist and idealist components, although Tarde merely hints at this last point. Tarde expresses agreement with Leibniz on the rejection of mind-matter dualism, accepting the monadic hypothesis as the only viable escape from the continuum problem, as well as on the infinite division and diversity of matter, and the infinitesimal as the source of the finite. Explicit points of divergence are Tarde's rejection of a pre-established harmony and the closure of monads, and Leibniz's alleged position that his monads are merely microcosms and unlike Tarde's monads not entire universes in themselves, and of course his omission of any theological role for God in his metaphysics. An obvious expansion by Tarde on Leibniz's monadology is his application of it to sociology.

b) Leibniz References in *Maine de Biran*

Turning now to what Tarde tells us about his interpretation of Leibniz in *Maine de Biran*, we learn that it was Biran who first applied Leibniz's monadology to sociology, in particular Leibniz's theory of force, and that Tarde was inspired by this interpretation. As in the passage from *M&S* discussed above, Tarde introduces Leibniz's theory of force in the context of rebutting Spencer's evolutionism, which is the main theme of *Maine de Biran.* His argument proceeds like this: Spencer's evolutionism is based on a mechanistic theory that reduces all

change to movement alone, including changing states of consciousness. Spencer denies that nature undergoes either discrete transitions or qualitative leaps, asserting instead that all differences in living nature are merely quantitative gradations. This leads to a view that there are no fundamental distinctions among a species' evolutionary ancestors or between successive stages of individual development in nature—only a continuous flow of gradual modifications. As Tarde puts it, "[t]he fault of the philosophy of evolution is, let us finally say, to be the philosophy of identity."[21] In other words, evolutionism, as Spencer conceives it, reduces everything to a single, continuous process without acknowledging the diversity or qualitative distinction of emergent forms in nature. The common source to which Spencer reduces matter, spirit, movement, and consciousness alike is force.[22] Against this view Tarde evokes, on the one hand, Leibniz's monadology, which allows for real differences among infinitely many substances, and on the other, Leibniz's theory of force, but with key divergences. In doing so, Tarde reveals essential nuances of his monadology, particularly concerning belief and desire and how they relate to his concept of force, which is the topic of the next chapter, where I also discuss the explicit references Tarde makes to Leibniz in *Maine de Biran.*

3) Mind-matter dualism

As mentioned in my introduction, Tarde shares several of Leibniz's motivations for introducing monads as the fundamental constituents of reality, first and foremost the rejection of Descartes's mind-matter dualism.[23] Both Leibniz and Tarde criticize Descartes's mechanical philosophy, though Leibniz engages closely with the physics as well as the metaphysics of

[21] Tarde, *Maine de Biran*, 59.
[22] Ibid., 68.
[23] René Descartes, *Meditations on First Philosophy in Focus*, ed. Stanley Tweyman, trans. G. R. T. Ross and Elizabeth Sanderson Haldane (Taylor & Francis, 1993), 92. See also René Descartes, *Principles of Philosophy*, trans. V. R. Miller and R. P. Miller (Reidel, 1983), 36–37.

motion, whereas Tarde almost exclusively emphasizes metaphysics and especially the relation between movement and consciousness.[24] To understand what that means and where Leibniz and Tarde are agreeing and differing, it is useful first to look at Descartes's mechanical philosophy, which stands in stark contrast to the idea of nature in both Leibniz and Tarde.

For Descartes, aside from God, who is pure mind, and humans, who are mind-matter composites, there are only bodies without minds, bereft of teleology. These bodies are divisible portions of matter that can be distinguished from other matter because all their parts are moving together.[25] Since matter for Descartes is nothing but spatial extension,[26] bodies cannot initiate movement; God is the only source of movement, although Leibniz interprets Descartes as allowing minds to change the direction of motion.[27] Some of the main lines of criticism that have been developed against Descartes's mechanical philosophy refer to phenomena of biological reproduction, which seem to be incomprehensible on his account; to the unity of an individual over time despite corporeal change; to the harmony observable particularly in the biological world but also in the movement of celestial bodies and in crystals; and to the experience of consciousness, which makes any living individual more than a mere agglomerate of parts. Mechanical necessity did not seem to Leibniz a sufficient explanation for any of these phenomena.[28] Leibniz adds the point that Descartes's account of matter as pure extension does not account for why matter resists motion.[29] And there is the difficulty Descartes himself had to admit, since experience makes it undeniable: The human body has a mind even if nothing else in

[24] Tarde, *Monadology and Sociology*, 5.
[25] Descartes, *Principles of Philosophy*, II, 23.
[26] Ibid., II, 16.
[27] Leibniz, *Monadology*, para. 80.
[28] Richard T. W. Arthur, *Leibniz* (Cambridge: Polity Press, 2014), 9.
[29] Leibniz, "A Specimen of Dynamics," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 124.

nature does—creating a troubling discontinuity in a system that otherwise treats all bodies as mindless machines.

Leibniz introduces monads as a way to inject active and passive forces into matter, explaining by means of active forces the initiation of movement as well as teleological behaviour, or what Tarde calls desire, while passive forces are manifestations in the monads of the constraints imposed by the competing appetites of all other monads. Monads do not directly act upon other monads, but due to their pre-established harmony it is as if they did so.[30] (I discuss later the extent to which passive force may have been an inspiration for what Tarde calls belief.) Matter for Leibniz is endowed with monads in all of its parts, of which there are more than one can specify. In this way, matter has an internal principle of motion, the active force, also referred to as appetition,[31] and a passive force, which is the resistance to motion.[32] Unfortunately, Leibniz does not mention active and passive force in the *Monadology*, nor does he explain it in much detail in the *New Essays on Human Understanding.* Hence, this central aspect of Leibniz's philosophy was presumably unknown to Tarde, at least in its intricate details. This is further confirmed by the observation that very little in Tarde's monadology is reminiscent of the detailed account Leibniz gives of active and passive forces elsewhere.[33] It is thus unnecessary to detail how Leibniz conceives of active and passive forces and hence I limit myself to the few aspects of his account that enable me to draw a parallel to Tarde.

Leibniz introduces what he regards as the missing teleological character of Cartesian matter through the monads. The actions of Leibniz's monads are end-directed, i.e., purposeful, though we cannot understand their purpose apart from that of all other monads. Taken together, all the

[30] Leibniz, *Monadology*, para. 78.
[31] Ibid., para. 15.
[32] Leibniz, "A Specimen of Dynamics," 119.
[33] Leibniz, "A Specimen of Dynamics."

monads contribute, in their own way, to the perfect world God created. Each individual monad's goal is therefore unknowingly to achieve this purpose, and it cannot but achieve it, since God created the world as perfect as possible, which means that all monads are determined in their actions by the final cause of God's creation. When we observe something that seems less than perfect, this can be explained by the fact that while there might be actions of monads that are by broadly accepted human measures bad, the monad is constrained by the actions of all other monads, which means that while one monad, viewed separately, may not be perfect, a world in which it didn't exist would be less perfect due to the complex interplay among monads. We must always look at the best possible world consisting of a combination of monads that maximizes perfection. Leibniz calls "compossible" those monads whose states are compatible with all the other monads at each instant of their existence.[34] A set of compossible monads then constitutes a possible world. Of these possible worlds, God created the best one.

I now take a short detour to explain from where Leibniz drew his inspiration for the monads. He did by no means invent the term "monad," although he advanced the monadic hypothesis considerably and gave monads his own distinctive interpretation. In short, Leibniz's monads constitute a revival, with radical changes, of Aristotelian substantial forms. These are the organizing principles or essences that give material objects their identity and define their nature.[35] In Aristotle's philosophy, bodies are composed of both matter and form, where matter is the underlying potential or substratum and form is the actualizing principle that gives any body its specific qualities. Substantial forms define the essence of a substance and distinguish it from others. They are also responsible for the growth and development of vital beings, and imbue each

[34] Leibniz, "On the Ultimate Origination of Things," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 151.
[35] Aristotle, *Metaphysics, Volume I: Books 1-9*, trans. Hugh Tredennick (Harvard University Press, 1933), vii.

substance with a purpose, as for example an acorn developing into an oak tree. Aristotle's substantial form is thus the active principle that allows for and even necessitates change. While Aristotelian ideas were being increasingly challenged by mechanistic approaches from seventeenth century thinkers like Descartes, Gassendi, and Boyle, Aristotelianism was still influential in Leibniz's time, and many of his contemporaries adhered to it. Leibniz himself, however, did not stand outside the emerging scientific worldview; rather, he made pivotal contributions to modern natural science, engaging deeply with its mechanistic aspects even as he developed his own metaphysical views on substance and force.

Leibniz's substantial forms are, like those of Aristotle, responsible for matter's end-directed behaviour. But Leibniz combined substantial forms with the mechanistic explanation of the world introduced by Descartes, Hobbes, and others. Descartes had rejected substantial forms because he strove for a mathematical explanation of natural phenomena, for which Aristotle's idea was unsuited. Rendering substantial forms and a mechanic explanation of natural phenomena compatible was one of Leibniz's great aspirations.[36] He enriches Cartesian matter with Aristotelian substantial form, taking the best of both approaches, namely the scientific aspirations of Descartes and Aristotle's insights into the teleological aspect of matter, and rendering them compatible by making substantial changes to how one should understand matter and spirit. The result is that all matter is constituted by, albeit not composed of, monads, i.e., mind-like substances understood as centres of force responsible for bodies being able to act and be acted upon.

As I explain in greater detail in Chapter V, Tarde follows Leibniz in his conviction that there are souls everywhere in matter. He also closely ties this assumption to the requirement of

[36] Richard Arthur, *Monads, Composition, and Force: Ariadnean Threads through Leibniz's Labyrinth* (Oxford University Press, 2018), chap. 4.

movement to be initiated by something in the moving bodies themselves, rather than a merely mechanical interaction with another body. Consequently, these moving bodies cannot be mere mindless matter.[37] Since Tarde did not rely on God for the introduction of purpose, and since he operated in a social and intellectual climate—late 19th-century France—that placed fewer constraints on departing from religious orthodoxy than Leibniz's early modern Protestant context, he was able to significantly modify Leibniz's monadology, ultimately removing and replacing what had been its theological cornerstone.

What for Leibniz was the monad's main task of supplying an underlying unity of substance and a continuity of changes in monadic states, disappears from Tarde's theory. Instead, the central characteristic of Tarde's monads, so my central thesis, is that they are hypothetical entities marking the intersection of what he calls rays of imitation. These monads are required to explain the relational complexities formed by what is really fundamental, namely the rays of imitation and the changes their action introduces. As such, Tardean monads would not count as substances for Leibniz. Since their relations change from one instant to another, they do not have the requisite permanence to qualify as substances. That said, even though God falls out of the system, Tarde's monadology has a clear spiritual undertone. In the conclusion of *M&S*, we find him saying:

> Perhaps life is nothing but a time of trials, a drudgery of schoolboy exercises undergone by the monads who, on graduating from this hard and mystical school, find themselves purged of their former need for universal domination. I am persuaded that few among them, once fallen from the cerebral throne, have any wish to return. Restored to their original state, to absolute independence, they give up their power over the body without suffering and without hoping to return, and enjoy for all eternity the divine state into which they were plunged in the last moment of life, exemption from all evils and all desires, though not from all loves, and the certainty of possessing a concealed and everlasting good.[38]

[37] Tarde, *Monadology and Sociology*, 5.
[38] Ibid., 65–66.

4) Infinite division of bodies and the hierarchy of monads

In this section, I discuss two key principles of Leibniz's theory that Tarde demonstrably took over from him, but again with significant divergences, namely, the infinite division of bodies and the hierarchy of monads. I treat these two topics together because, as we shall see, one of the characteristic of a Leibnizian dominant monad lies in its ability to "make one" an aggregate of parts[39]—parts that must be understood as infinitely divided.[40] A second aspect of monadic dominance lies in certain monads' higher mental capacity, and a third aspect lies in Leibniz's account of causation. All three aspects can also be tied to Tarde's dominant monad, but I have to admit that the alignment is rather speculative, first and foremost because dominant monads are only mentioned as an aside in the *Monadology* and not at all in *New Essays on Human Understanding*, the main texts of Leibniz that we know Tarde has read. Secondly, Tarde himself speaks only sporadically of dominant monads (he usually calls them leading elements) and does not give a clear account of what is responsible for their dominance. I argue in Chapter V that the most fitting account of dominance draws from Leibniz's theory of causation, an argument which I shall prepare here by showing how Leibniz conceives of dominance.

I begin with the aspect of dominance that has to do with the monad's ability to unite aggregates. We must not understand this as the monad glueing an aggregate together into one thing. This can't be done because Leibniz is clear that anything material is constantly changing and never remains precisely the same. The dominant monad is, however, the principle of unity that explains why the aggregate, despite its membership changing at every moment, acts as one thing, meaning that it acts in pursuit of one purpose. While this chapter focuses on Leibniz's

[39] Leibniz, "Leibniz to de Volder, 20 June 1703," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 177.
[40] Leibniz, "Of Ideas," para. 211.

theory of dominance, I briefly sketch Tarde's own account so that we know what to look for in Leibniz as his possible inspiration. Note that Tarde is entirely silent on any relation of his account of dominant monads, or leading elements, to that of Leibniz. Hence all conclusions I draw here are based on the fact that some relevant passages that address this topic were available to Tarde. As I shall set out in greater detail in Chapter IV, I take the unifying characteristic of Tarde's account of substance to be that substance is the background or foundation of that which remains of action when the activity is removed, and since stipulating this foundation is a mental need we as observers of action have, this makes substance a mere hypothesis–precisely what I argue monads are.[41] So it is the substance/monad that unifies an agent's possibilities of action, though this unity is only phenomenologically given and hence hypothesized as a metaphysical foundation. Let's look in more detail at how Leibniz conceives of the dominance of monads and their ability to unify aggregates.

The claim that a dominant monad is responsible for this unification stems from the last sentence of a passage I can't confirm Tarde had access to:

> Therefore I distinguish: (1) the primitive entelechy or soul; (2) the matter, namely, the primary matter or primitive passive power; (3) the monad made up of these two things; (4) the mass [*massa*] or secondary matter, or the organic machine in which innumerable subordinate monads come together; and (5) the animal, that is, the corporeal substance, which the dominating monad in the machine makes one.[42]

While this passage suggests that only animals have a dominant monad that makes their corporeal substance one, we know from the *Monadology* that this would be too narrow an interpretation of what a dominant monad is, since, as Leibniz says, "it appears that each living body has a dominant entelechy, which in an animal is the soul; but the members of this living body are full

[41] Tarde, *Maine de Biran*, 97.
[42] Leibniz, "Leibniz to de Volder, 20 June 1703," 177.

of other living beings, plants, animals, each of which has also its dominant entelechy or soul."[43] Each part of a living body also has a dominant monad, and conversely, there are no substances that do not have a corresponding body. Incidentally, Tarde agrees with Leibniz on this point.[44] Here is an attempt to visualize this. The largest, lightest-grey circle in Figure 2 is the organic body of the ultimately dominant monad in this case, with the two next-darker ones being dominant in relation to the darkest and white monads respectively. The white monads too are dominant in relation to the monads that pertain to the parts of the bodies that the white monad unites which are not shown here, and so on *ad infinitum*.

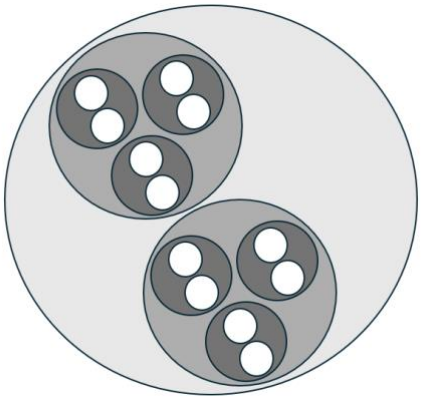

Figure 22: The infinite division of organic bodies

Not only must one understand human or animal souls as dominant monads; every organic body, which for Leibniz means all matter, has a dominant monad. It follows that dominant monads dominate not only subordinate monads but also other dominant monads, as this passage, unknown to Tarde but helpful for our understanding, explains: "Some worm can be a part of my body and subject to my dominant monad, and the same worm can have other animalcules in its body subject to its dominant monads. But considered in the monads themselves, domination and

[43] Leibniz, *Monadology*, 70.
[44] Tarde, *Monadology and Sociology*, 34.

subordination consist only in degrees of perfection."[45] The emerging conception of the unifying function of a dominant monad is, then, that every living thing has its own dominant monad, which can at the same time be in the service of the monad of another creature whose body its body is in. The overall unity of each living thing is not constituted by the parts it has or on their being spatially unified, but by contributing to its own functions and goals. The spatial unity of a body is conferred by its being conceived as such; as, for instance, some quantity of sheep is conceived as a flock by an outside observer.[46] Each of the individual sheep, on the other hand, has a unity of function as that particular animal, and reference to the substantial form or monad is a way of describing that unity of this function through time. This unification of parts by the observing mind is also something we find in Tarde, as I show in Chapter V.

In both Leibniz's and Tarde's monadologies, I propose that the dominant monad of a bodily part has the same function as the dominant monad of an animal, namely, to make that part one, always remembering that the result is not a spatial unity but a functional one. To understand how a monad introduces this functional unity to its aggregated bodies, and how this works in humans in contrast with single substances or animals, we need to take a closer look at the infinite division of bodies. While there is little evidence of Tarde taking over the monad's unifying capacity from Leibniz, the topic of the infinite division of bodies is of great importance for both Tarde and Leibniz, given that it is responsible for the diversity of everything there is, the backbone of both their monadologies. Hence, I shall treat this topic here in some detail despite its playing only a minor role in the context of dominant monads.

[45] Leibniz, *Philosophical Papers and Letters: A Selection*, 2nd ed., ed. Leroy E. Loemker (Reidel, 1989), 604-05.
[46] Leibniz, "Of Ideas," 146.

Leibniz holds, and Tarde agrees, that bodies are infinitely divided and that their unity does not derive from the unity of some smallest element of which bodies are composed, such as an indivisible atom. The argument is that just because the parts that compose an aggregate move in unison does not mean that they form a unity. Leibniz provides the example of a herd.[47] The closeness, firmness, and duration of a bond among the parts cannot suffice for their unity. A frozen pond does not make the fish it contains a unity, and neither is a crown that holds two diamonds a unified body. These relationships are only unities (if they are) by virtue of the monad, not anything about the bodies as such. Instead, Leibniz stipulates that there are substances (i.e., substantial forms, or monads) associated with bodies that are responsible for their unity and these substances are everywhere. As he famously claimed in the *Monadology*:

> Whence it appears that in the smallest particle of matter there is a world of creatures, living beings, animals, entelechies, souls.
> Each portion of matter may be conceived as like a garden full of plants and like a pond full of fishes. But each branch of every plant, each member of every animal, each drop of its liquid parts is also some such garden or pond.
> And though the earth and the air which are between the plants of the garden, or the water which is between the fish of the pond, be neither plant nor fish; yet they also contain plants and fishes, but mostly so minute as to be imperceptible to us.[48]

It is important to note, first, that there is no "smallest particle of matter," as the first of the three paragraphs of the *Monadology* seems to suggest. Instead, Leibniz is clear that matter is infinitely divided, and he says so in the paragraph immediately preceding those just cited.[49] Secondly, Leibniz, at least in his mature philosophy, does not think that there is an actual infinite quantity of anything in the sense that it could constitute a whole, just as there is no actual infinitieth part. Instead, to say that a body has infinite parts means that for any finite number of parts, it has more parts than that, i.e., more than can ever be specified. But an infinite number of

[47] Ibid., 211.
[48] Leibniz, *Monadology*, paras. 66–68.
[49] Ibid., 65.

parts understood as a whole is a fiction, as we see from the following passage of the *New Essays on Human Understanding* to which Tarde had access:

> It is perfectly correct to say that there is an infinity of things, i.e. that there are always more of them than one can specify. But it is easy to demonstrate that there is no infinite number, nor any infinite line or other infinite quantity, if these are taken to be genuine wholes. The Scholastics were taking that view, or should have been doing so, when they allowed a "syncategorematic" infinite, as they called it, but not a "categorematic" one. The true infinite, strictly speaking, is only in the *absolute*, which precedes all composition and is not formed by the addition of parts.[50]

There is a divergence here from Leibniz as Tarde seems to assign reality to the infinitesimal, calling it a tiny being: "However this question is resolved, these tiny beings which we call infinitesimal will be the real *agents*, and these tiny variations which we call infinitesimal will be the real *actions*."[51] I suspect that Leibniz would have good reason to object to this, but Tarde did not concern himself with mathematical rigor. I pick up this topic in greater detail in Chapter V.

Having established what Leibniz means by the infinite division of matter, I return to the functional unity that the dominant monad bestows on the parts of the body to which it pertains in order to see how much of that theory Tarde may plausibly be said to have known. Leibniz does not give a very clear explanation of what I discussed above in the texts we know were available to Tarde. He restricts his comments on this topic in the *Monadology* to the claim that a monad always pertains to a body, even though the constituent parts of the body constantly change, though not all at once.[52] He also notes that the motion of bodies follows laws distinct from those that monads abide by but that both are synchronized, though as a result of the pre-established harmony, not because there is any influence from one on the other.[53] However, from another passage available to Tarde, we can infer that he might have known Leibniz's idea of how a

[50] Leibniz, "Of Ideas," para. 157.
[51] Tarde, *Monadology and Sociology*, 11.
[52] Leibniz, *Monadology*, 71.
[53] Ibid., paras. 78–79.

monad renders an individual the same over time. The vital principle in the following passage is, I take it, another way of describing the function or telos of the monad.

> Organization or configuration alone, without an enduring principle of life which I call "monad," would not suffice to make something remain numerically the same, i.e. the same individual. For the configuration can continue specifically without continuing individually. […] So we must acknowledge that organic bodies as well as others remain the same only in appearance, and not strictly speaking. It is rather like a river whose water is continually changing, or like Theseus's ship which the Athenians were constantly repairing. But as for substances which possess in themselves a genuine, real, substantial unity, and which are capable of actions which can properly be called "vital"; and as for substantial beings, *quae uno spiritu continentur* as one of the ancient jurists says, meaning that a certain indivisible spirit animates them: one can rightly say that they remain perfectly "the same individual" in virtue of this soul or spirit which makes the I in substances which think.[54]

How is it, then, that someone remains the same individual over time? "It is this continuity and interconnection of perceptions which make someone really the same individual; but our awarenesses—i.e. when we are aware of past states of mind—prove a moral identity as well, and make the real identity appear."[55] The real identity, I take it, is a physical identity underlying this merely "moral identity" and is provided by the law of the series according to which the continuous succession of states or perceptions is produced in each monad.[56] But awareness or memory add yet another element, moral identity. In a later section, on Continuity, I have occasion to explain in further detail the role monads play with regard to identity. For now it is only important to note that this awareness refers to self-consciousness and is ascribed to humans and denied to non-human animals. This allows me to move seamlessly to the next aspect of domination, which is superior intellect.

[54] Leibniz, "Of Ideas," paras. 231–232.
[55] Ibid., para. 239.
[56] Leibniz, *Monadology*, para. 23.

The following passage, from the *Monadology* and hence known to Tarde, affirms that all monads have perceptions and desires, though a distinction can be made between monads with regard to their mental capacity:

> If we are to give the name of Soul to everything which has perceptions and desires [*appetits*] in the general sense which I have explained, then all simple substances or created Monads might be called souls; but as feeling [*le sentiment*] is something more than a bare perception, I think it right that the general name of Monads or Entelechies should suffice for simple substances which have perception only, and that the name of Souls should be given only to those in which perception is more distinct, and is accompanied by memory.[57]

This passage speaks only of memory as the distinguishing factor between the monads that pertain to creatures with this particular capability, but it is not too much of a stretch to broaden this mental faculty and thus the characteristic of dominance to intelligence in general. That Leibniz had just that in mind is obvious from a passage to which, however, we can't be sure that Tarde had access: "I believe that it is consistent neither with order nor with the beauty or reasonableness of things for there to be something living, that is, acting from within itself, in only the smallest portion of matter, when it would contribute to greater perfection for such things to be everywhere. Nor is there any reason why souls or things analogous to souls should not be everywhere, even if dominant and consequently intelligent souls, like human souls, cannot be everywhere."[58] Although this passage is from a work to which we don't know Tarde had access, we know that he was familiar with Leibniz's position that "we are the only rational animals on this globe."[59] Tarde disagrees on this point, as I detail in Chapter IV. He holds that there is intelligence everywhere in matter.[60]

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[57] Ibid., para. 19.
[58] Leibniz, "On Nature Itself," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 161.
[59] Gottfried Wilhelm Freiherr von Leibniz, "Of Knowledge," in *Leibniz: New Essays on Human Understanding*, 2nd ed., ed. Jonathan Bennett and Peter Remnant (Cambridge University Press, 1996), para. 401, Cambridge Core.
[60] Tarde, *Monadology and Sociology*, 25.

For Leibniz, the hierarchy looks like this: there is inorganic matter, like stones or wood chips but also corpses, that have no monad that pertains to that portion of matter, but they are aggregates of organic bodies, which do have such a monad. A stone would thus not have perception. Then there is organic matter like plants, which Leibniz calls living beings. These have a monad that pertains to their portion of matter and which thus provides the underlying unity of substance. Hence the plant can be said to have appetition and perception. Entering into the animal realm, Leibniz adds memory to the monad that pertains to the animal's body and that makes changes of monadic states, or perceptions, continuous. This may seem to resemble reason, but really does not, reason being reserved for humans' monads.[61]

In summary, dominant monads dominate a body's subordinate monads as well as other monads that the dominant monad functionally unites into one being, with the dominant monad of an animal also being intellectually superior to dominant monads of the parts of its body, and with the dominant monad of a human being also having a rational faculty.

Leibniz's theory of the hierarchy of monads gets more complicated when we turn to the question of how a dominant monad actually controls what goes on in its body. One part of the answer is of course again the pre-established harmony, which describes the fact, as Leibniz sees it, that all relationships among things in the same world harmonise or are compatible with each other in all details because God made it so. But that doesn't suffice for explaining how the dominant monad exercises its control over the subordinate monads in a way that ensures the functional unity of the body.

I take it that the concept of the dominant monad allows Leibniz to introduce the concept of causation, albeit a very particular version of it, given that there is no room in his metaphysics for

[61] Leibniz, *Monadology*, paras. 26, 29.

direct interaction among monads or between monads and bodies. This reading is supported by the following passage known to Tarde: "And one created thing is more perfect than another, in this, that there is found in the more perfect that which serves to explain a priori what takes place in the less perfect, and it is on this account that the former is said to act upon the latter."[62] I understand this to mean that a monad's ability to serve as the more intelligible explanation of what goes on in another monad renders the first monad more perfect and thus dominant, but at the same time Leibniz interprets this superiority as causal agency. In other words, if we can understand the actions of the subordinate monad better when regarded in light of its contribution to the purpose of the dominant monad (namely the dominant monad's contribution to the greater perfection of the universe), that means the dominant monad better represents the subordinate monad, i.e., its states of perception and the change from one perception to the next.

The dominant monad, having a broader perspective due to the fact that it consists of additional monads subordinate to it, represents the universe more distinctly compared to any of those subordinate monads, which are limited in their perceptions because they do not themselves explain what takes place in all the monads that form part of the body to which the dominant monad pertains. For example, the activities of stomach bacteria are better understood when we consider the larger organism of which they are a part because of their intricate interplay with the whole, which they are much less distinctly "aware" of than the whole organism would be. In this sense, the subordinate monads (including the ones that are dominant in relation to their own subordinate monads) are less perfect as they are more limited in their perceptions and their ability to represent the whole organism. That also makes them, in a very particular sense, passive:

[62] Ibid., para. 50.

> Accordingly, among created things, activities and passivities are mutual. For God, comparing two simple substances, finds in each reasons which oblige Him to adapt the other to it, and consequently what is active in certain respects is passive from another point of view; active in so far as what we distinctly know in it serves to explain [*rendre raison de*] what takes place in another, and passive in so far as the explanation [*raison*] of what takes place in it is to be found in that which is distinctly known in another.[63]

It is admittedly curious to speak of dominant monads that control subordinate ones, in the sense that the former causes the latter to act in a certain way, when we know that there is in all metaphysical rigor no interaction. But if we pass over this difficulty, we find that Leibniz establishes a functional hierarchy in which lower-order body parts and the monads that render their constituents a unity serve the higher-order body parts that contain them in the sense that they contribute to the higher-order part's function. Knowing what that function is, the activity of the lower-order body parts can be explained more comprehensively. This appears to be a fairly weak meaning of dominance or control, but within the constraints of Leibniz's system it is as strong as it can be.

One last aspect of Leibniz's theory of dominant monads remains to be clarified, which is his claim that "considered in the monads themselves, domination and subordination consist only in degrees of perfection."[64] As already mentioned, we must understand this in terms of a perception's degree of clarity or distinctness. It is not obvious how this fits with the explanation in terms of functional hierarchy but we do in fact have all the pieces in place to understand the claim. The ability to dominate or serve as an explanation for the activity of a number of organized monads corresponds to a more distinct perception because the animal's monad dominates more parts of its body, namely all of them, whereas the subordinate monads only dominate a proper portion of that body, such as an organ. The dominant monad that can draw on

[63] Ibid., para. 52.
[64] Leibniz, *Philosophical Papers and Letters*, 604-05.

all the sense organs at the same time has the advantage, since the entire body allows for a more distinct perception of the constituent monads than that of, say, the intestines. We see that more clearly when we turn it around: If a sense organ is not operating properly, the monad is less able to represent the universe, and also cannot serve as a good explanation of what happens in that malfunctioning sense organ, which does not contribute to the body's purpose. We now see that the three ways a monad can be dominant are related: domination in the sense of a mentally unifying principle always also means that the dominant monad has greater intellectual ability than the subordinate monads, which is also what makes animal and human monads dominant in the third sense of domination, as we can understand clearer perceptions as greater intellectual abilities as well.

This is a good moment to make an important observation that resonates with Tarde, who brings it to the forefront of his theory, and that is the importance of relations. It is true that a monad requires neither a body (although a monad always by necessity pertains to a body[65]) nor other monads for its perceptions or their changes, since perceptions follow one another due to an internal principle, as we shall see in the following section. However, for Leibniz, a monad's perceptions harmonise with the states of all other monads and with changes in the bodies to which they pertain. These are real relations that Leibniz describes by reference to the pre-established harmony. These harmonies are not causal interactions among monads or between monads and bodies but are instead the real relations that constitute the pre-established harmony itself. Tarde did not need to do much to turn this concept into a system of universal relations based on real interaction, while of course at the same time decisively discarding the theological framework that structured Leibniz's version of monadology.

[65] Leibniz, *Monadology*, para. 72.

5) Identity of Indiscernibles and Individuation

Remaining on the topic of relations but shifting to the question of the monads' distinctness, I note first that monads have an important relationship to the entirety of the universe for both Tarde and Leibniz, albeit differing in key details. Leibniz suggests that "this connexion or adaptation of all created things to each and of each to all means that each simple substance has relations which express all the others, and, consequently, that it is a perpetual living mirror of the universe."[66] Furthermore, this relation to all other substances is responsible for the uniqueness of each monad, as we will see below. Tarde clearly agrees with Leibniz on both counts, the internal uniqueness of every monad as well as its relation to everything else. In fact, Tarde makes the monad's heterogeneity the centerpiece of his monadology: "Difference is the alpha and omega of the universe; everything begins with difference, with the elements whose innate diversity (which various reasons make probable) can in my view be the only justification of their multiplicity."[67]

It is less clear whether Tarde sees the reason for this innate diversity to lie in the monad's unique relation to all other monads, as did Leibniz, but I argue in Chapter V that this is a plausible interpretation. Drawing out the highlights of what Leibniz means by the identity of indiscernibles allows us to see what of Leibniz's account Tarde took over and what he modified to make it fit his purpose. I leave my account of Tarde's version of the identity of indiscernibles and individuation for Chapter V, as it will be possible to give a full account only once I have established some further details of his theory of mutual possession.

Leibniz held, and this Tarde knew, that it would be impossible for two substances to share all internal properties and not be identical (this is Leibniz's principle of identity of indiscernibles).[68]

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[66] Ibid., para. 56.
[67] Tarde, *Monadology and Sociology*, 40.
[68] Leibniz, *Monadology*, para. 9.

Importantly, external properties, chiefly spatio-temporal properties, do not suffice to distinguish between otherwise identical substances.[69] Rather, two substances in different locations must be different from one another due to some difference in their intrinsic properties, even though that difference may not be apparent to an observer. To understand this idea fully it is helpful to draw from his doctrine of marks and traces:

> An immaterial being or spirit cannot "be stripped of all" perception of its past existence. It retains impressions of everything which has previously happened to it, and it even has presentiments of everything which will happen to it; but these states of mind are mostly too minute to be distinguishable and for one to be aware of them, although they may perhaps grow some day.[70]

In other words, the monad contains a record of everything that it ever perceived and everything it ever will perceive, making it unique in comparison to all other monads.

This already broad notion of the monad's impressions is further broadened by Leibniz's remarks in the *Monadology* that every monad is a mirror of the entire universe from its unique perspective.[71] To be clear, the whole universe can be read off the infinitely complex state of any monad, but only by an omniscient being. He says that every monad represents some parts of the universe more clearly than others, namely those "which are either nearest or greatest in relation to each of the Monads."[72] A few paragraphs later, Leibniz confirms that the nearest part of the universe is the body of which the monad is the entelechy.[73] Since bodies are always changing, so are the things the monad can most clearly represent. This becomes evident in a later passage of the *Monadology* where Leibniz puts it thus: "each portion of matter is not only infinitely

[69] Leibniz, "Of Ideas," para. 230.
[70] Leibniz, "Of Knowledge," para. 239.
[71] Leibniz, *Monadology*, para. 56. Note that these traces must be different from what Leibniz calls memory, as memory is only ascribed to human souls, whereas all monads seem to be characterized by containing traces of their respective histories as well as futures and those of all other monads.
[72] Ibid., para. 60.
[73] Ibid., para. 62.

divisible, as the ancients observed, but is also actually subdivided without end, each part into further parts, of which each has some motion of its own; otherwise it would be impossible for each portion of matter to express the whole universe."[74]

Having a motion of its own means that each part's constituent elements move together as one, which is only possible due to the part's dominant monad, as we have seen. I take it that moving together as one doesn't mean the parts all have the same motion but rather that all their motions support the dominant monad's purpose. If all parts were indistinguishable from each other, they would have the same motion and could not support distinct purposes. This indistinguishability would also render all monads equally capable—or incapable—of explaining what happens in the world, thereby eliminating any hierarchy of explanatory power. Without such differentiation, there would be no activity to explain in the first place, and the concept of causation, as Leibniz understands it, would lose all meaning. Here again the importance of relations for monadic uniqueness and change becomes clear. Change can only occur in relation to something and what makes a monad unique are its collected impressions of its past and future perception, with perceptions always having its object and thus being in relation to something. If the relata were identical, however, change could not occur and there would only ever be one perception. Consequently, in this sense, all monads are constantly changing with their changing representations. This relation of the monad's uniqueness to the changing nature of its body is important but it doesn't yet provide the full explanation.

The uniqueness of each monad depends on more than its representations, for we must also take into account its internal principle of change, that is, its appetition. Consider the following passage:

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[74] Leibniz, *Monadology*, para. 65.

> Yet the Monads must have some qualities, otherwise they would not even be existing things. And if simple substances did not differ in quality, there would be absolutely no means of perceiving any change in things. For what is in the compound can come only from the simple elements it contains, and the Monads, if they had no qualities, would be indistinguishable from one another, since they do not differ in quantity. Consequently, space being a plenum, each part of space would always receive, in any motion, exactly the equivalent of what it already had, and no one state of things would be discernible from another.[75]

Here, Leibniz establishes a crucial link between the internal difference within a monad and the possibility of change, from which I believe Tarde derives his primary emphasis on difference. Let me explain how I see what Leibniz is saying here. We know from the paragraphs that immediately follow the one cited above that change in monads originates from an internal principle, as nothing can affect a monad from the outside. Furthermore, the change must be gradual, which means that some aspects of the monad change and other don't, yet since monads have no parts, we cannot say that some parts of the monad change first and then others follow.[76] Para. 14 of the *Monadology* clarifies that the change in question is a change of perception.

Did we just come full circle? No, because the point is not that the monad's internal states correspond to its perceptions of the changes in its body and the bodies to which its body relates. Instead, the point is that for there to be such a correspondence the monad has to be a multiplicity and one that cannot be explained on mechanical grounds, i.e., in terms of a mere change of location or material parts, but rather by means of an internal principle, namely, appetition.[77] Leibniz explains: "We have in ourselves experience of a multiplicity in simple substance when we find that the least thought of which we are conscious involves variety in its object. Thus all those who admit that the soul is a simple substance should admit this multiplicity in the Monad."[78] So, while changes or motions in bodies can be explained with reference to their

[75] Leibniz, *Monadology*, para. 8.
[76] Ibid., paras. 9–13.
[77] Ibid., paras. 16–17.
[78] Ibid., 16.

moving parts, the changes in a monad's perception, while corresponding to the changes of the body mediated by the pre-established harmony, are not mechanical but principle-based. In other words, changes in the bodies mirror corresponding changes of perception, although the latter are not caused by the former in an ordinary (mechanical) sense of causation. Tarde's monads are also based on the principle of difference rather than simplicity, but their internal changes consist of changing beliefs which are affected by the influences of other monads. I explore this in detail in Chapter V.

6) Continuity

The topic of a monad's multiplicity and its changes from perception to perception is connected to that of continuity. Each of the monad's momentary perceptions must to some extent endure in time, otherwise a monad's state would be an aggregate of instantaneous perceptions and then subject to the contradictions of a continuum composed of point-like elements. Much of Leibniz's thinking revolves around this "labyrinth of the continuum." On the one hand, it seems that a continuum, like a line or a duration, is composed of distinct points or instants, while on the other hand it seems that a collection of points or instants, no matter how many, could never compose a continuum, since there would always be space between such parts, rendering them discontinuous. Leibniz solves this problem by arguing that continuity is an ideal notion, a rule of order that we apply when perceiving something.[79] Matter, change, and perceptions are in actuality discrete, but they do not violate the law of continuity, which holds that nature makes no leaps, because the discrete differences or changes are infinitely small, by which Leibniz means that no matter how small these changes might be, there are, provably, still smaller ones.

[79] Leibniz, "Leibniz to de Volder, 19 January 1706," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 185.

In ancient Greece, Parmenides and Zeno already discussed the problem of the continuum in the form of the question whether being is one or many and whether the continuum is divisible. Parmenides argued that being is homogeneous and continuous.[80] In fact, all of existence is a continuum without parts, a single, indivisible whole. Zeno, for his part, attempted to show that an infinite division of space and time leads to contradiction, which supports the conclusion that Parmenides was correct when he claimed that the discreteness of perceived things is illusionary and that in fact being is one indivisible whole.[81] Leucippus and Democritus offered a competing solution to the apparent contradictions Zeno discovered when pondering the divisibility of things. Rather than proposing an actual infinite division, they argued that matter could be divided only up to a point, at which we then arrive at solid, homogeneous, spatially extended atoms that are, as the name suggests, not further divisible.[82] Aristotle rejected atomism and argued that a continuum cannot be composed of indivisible parts, because for something to be a continuum the constituent parts must share a boundary. Now, if matter were infinitely divisible, that would eventually reduce any magnitude to extensionless points, which could not be reassembled to form the original whole. In an attempt to escape this contradiction, Aristotle argued that infinite divisibility means that matter can be divided anywhere, but not everywhere at the same time. Thus, he arrived at the idea of a potential infinite divisibility.[83]

Leibniz also rejected atomism, holding that atoms contradict the infinite division of matter. As opposed to Aristotle though, and as Tarde knew, he favored an actual division of matter rather than merely potential divisibility, arguing that "nothing takes place suddenly, and it is one of my

[80] Guthrie, *A History of Greek Philosophy - The Presocratic Tradition from Parmenides to Democritus*, II, 33.
[81] Ibid., II, 88.
[82] Ibid., II, 117.
[83] Ibid., II, 113.

great and best confirmed maxims that *nature never makes leaps*."[84] Given that my goal is to discuss Leibniz's theories only insofar as they are relevant to understanding Tarde, I focus here on the continuity of a monad's perceptions rather than on the continuity of matter or motion, which Tarde did not comment on in significant detail.

We know, and so did Tarde, from reading the *New Essays on Human Understanding*, that Leibniz held sensible perceptions to be composed of infinitely many minute perceptions that can themselves not be sensed.[85] There are two things relevant to continua to consider here. First, we want to know how these imperceptible perceptions of which a monad is unaware are combined into a perception of which the monad is aware, and secondly, how several sensed perceptions are combined in one individual's experience of continued existence. Non-sensible perceptions can be brought to awareness by "a tiny increase or addition."[86] I take this to mean that either the intensity of a sound, colour, touch, etc., increases, or a separate, by itself perhaps also insensible perception is added, as when several waves together hit the shore rather than just one at a time, rendering them perceptible together.[87] Below a certain threshold, the impression these minute perceptions make on the soul results only in confused states of mind of which the monad is not conscious. In other words, it is not aware of these impressions; it does not know that it has them. Consequently, since Leibniz defines memory as "the power to bring ideas back before the mind,"[88] it can't be memory that connects a monad's insensible perceptions into a sensible one.[89] He says this clearly in the following passage:

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[84] Leibniz, "Preface," in *Leibniz: New Essays on Human Understanding*, 2nd ed., ed. Jonathan Bennett and Peter Remnant (Cambridge University Press, 1996), 56, Cambridge Core.
[85] Leibniz, "Of Ideas," para. 134.
[86] Ibid.
[87] Leibniz, "Preface," para. 54.
[88] Leibniz, "Of Ideas," para. 140.
[89] Ibid., para. 161.

> For it must be borne in mind that each soul retains all its previous impressions, and could not be separated into two halves in the manner you have described: within each substance there is a perfect bond between the future and the past, which is what creates the identity of the individual. Memory is not necessary for this, however, and is sometimes not even possible, because of the multitude of past and present impressions which jointly contribute to our present thoughts; for I believe that each of a man's thoughts has some effect, if only a confused one, or leaves some trace which mingles with the thoughts which follow it.[90]

This passage teaches us that there are many perceptions above the threshold where the soul could take note of them but doesn't, not directing its attention to them.[91] Still, they differ from insensible perceptions in that they form part of memory, which Leibniz proves by pointing out that the moment after a sound struck our sense organs without us directing attention to it, if someone alerts us to the sound, we can remember having perceived it.[92] But what is it, then, that ties together a myriad of insensible perceptions into a perceptible one if not awareness and memory? I take it that there is a physical identity, the continuity of the progression of monadic states, which are, as we know, perceptions. It is the law of its series that underlies the connection between all the states of a given monad. But this law does not do anything. It is the monad's appetition that brings states out of previous ones in accordance with this law.

As we shall see in Chapter V, Tarde proposes that it is the self, or consciousness, that unifies distinct sensory impulses. One further takeaway here is that Leibniz's reference to perception does not only include sensible perceptions. The law of the series that says that each perception follows from the previous one based on an internal principle of action (namely, appetition) does not require the perception to be consciously sensed. As we have seen, a monad's memory contributes to the creation of the *moral* identity of an individual just as the testimony of other

[90] Ibid., para. 114.
[91] Ibid., para. 115.
[92] Leibniz, "Preface," para. 54.

people would also be suitable to construct a continuous story of a person's consecutive states but is not a necessary condition for physical identity.[93]

We get a clearer picture of how the monad's perceptions allow for the identity of an individual over time from this passage: "These insensible perceptions also indicate and constitute the same individual, which is characterized by the traces or expressions they preserve of the previous states of this individual, thereby connecting these with its present state; and even when this individual itself has no sense of these traces of previous states, that is to say, when there is no longer any explicit memory of them, they could be known by a superior mind."[94] Leibniz is saying that each state or perception contains traces of previous states, which means that the states of the monad form a continuum and live on in the following state. Yet the states themselves are discontinuous. We have seen above that just like motion and matter, perceptions are infinitely divided and since each instant of perception is divisible into smaller and smaller perceptions to infinity, distinct perceptions are so dense that the instants at which there is no perception become negligibly small.

It seems that the importance of unperceived perceptions cannot be overstated. In the Preface to *New Essays on Human Understanding*, Leibniz attributes several crucial functions to these minute, insensible perceptions: they "account for that marvellous pre-established harmony between the soul and the body, and indeed amongst all the monads or simple substances," they are responsible for the "connection that each being has with all the rest of the universe," they allow the present to contain the future as well as the past, and they determine our behavior.[95] Further consequences of these imperceptible variations are that no two things are perfectly alike,

[93] Leibniz, "Of Ideas," para. 237.
[94] Leibniz, "Preface," para. 55.
[95] Ibid.

that there is never a soul without thought or a substance that is completely without action, that neither atoms nor empty space exist, and many more.[96] He summarizes: "In short, insensible perceptions are as important to pneumatology [Leibniz's term for the study of immaterial substances, such as souls and monads] as insensible corpuscles are to natural science, and it is just as unreasonable to reject the one as the other on the pretext that they are beyond the reach of our senses."[97] This remark is immediately followed by the quotation I cited above to the effect that nature makes no leaps, from which he concludes that the law of continuity supports his contention that conscious perceptions result from aggregates of unconscious ones by degree. Lastly, he connects these claims with the notion of the infinite division of things, saying: "To think otherwise is to be ignorant of the immeasurable fineness of things, which always and everywhere involves an actual infinity."[98]

This much detail on the topic of continuity is warranted because, as we will see in Chapter V, Tarde's monadology is concerned with solving the same puzzle, although he says much less about it compared to Leibniz. He does, however, reject the existence of unfelt sensations (which I believe he considers to be synonymous with insensible perceptions) and unconscious efforts, but unfortunately without explicitly tying his rejection of these pillars of Leibniz's monadology to the issue of the continuum. Instead, this rejection is couched in terms of Tarde's theory of force and his interpretation of Leibniz's account of force, which is the topic of the following chapter.

[96] Ibid., para. 57.
[97] Ibid., para. 56.
[98] Ibid., para. 57.

Chapter IV: Force, Substance, and Consciousness

Tarde's theory of force is central to the strand of my thesis that examines the metaphysical foundations of his thought, particularly his account of change and movement. It is also relevant insofar as the monad's goal-directedness ontologically grounds activity, which will be key in the discussion of AI agency. The discussion of the concepts of substance and consciousness, on the other hand, only tangentially inform my later account of AI agency, while constituting key elements of Leibniz's and Tarde's monadologies, although in the case of substance this is more so true for Leibniz than Tarde.

I argue that Tarde designs his monads as hypothetical entities primarily tasked with explaining these phenomena. Since force drives change and movement, it is key to understanding how they relate to the monads and more specifically to belief and desire. As there is a lot to unpack with respect to this concept of force, especially as it relates to the other key concepts of consciousness and substance, I single them out in this chapter. It will be helpful to gain clarity on Tarde's inspiration for his theory of force and where he deviates from the thinkers before him, in particular Leibniz.

The content of this chapter relies heavily on what Tarde has to say about Leibniz's definition of force in *Maine de Biran*. The controversy between the two revolves around whether there can be unconscious or insensible sensations and efforts. Tarde denies the possibility, and his argument gives us the opportunity to explore the connections he draws among concepts of consciousness, force, belief, desire, and will or effort. In this chapter, I also argue that Tarde's conception of substance is closely related to that of monads, which are for him the hypothetical entities that form the foundation of faculties that are responsible for action.

Let me first set out some expectations. In keeping with Tarde's agenda, he is much more focused on explaining how force works in the social rather than physical world. He overtly says more than once that this is due to the first-hand observations that we are able to make in the former but not the latter context.[1] Hence, it is no surprise that Tarde does not spell out in detail how he conceives of physical forces. He tends to work with analogies to the social world, leaving much about the physical world to the reader's imagination. At times Tarde even says that his manner of speaking is merely metaphorical, for example in this passage:

> This tendency [of expansion], however, here [in the social environment] as in external nature, often proves abortive through the competition of rival tendencies. But this fact is of little importance to theory; besides, it is metaphorical. Desire can no more be attributed to ideas than to vibrations or species, and the fact in question must be understood to mean that the scattered individual forces which are inherent in the innumerable beings composing the environment where these forms propagate themselves, have taken a common direction.[2]

At other times Tarde suggests that psychological forces and physical forces are *comparable* in some respects, though indicating that a difference remains: "It is certainly interesting to note that each of these subjective quantities, belief and desire, possesses two opposite signs, the positive and negative, and that in this respect they admit of comparison with objective quantities, such as mechanical forces which act in opposite directions along the same straight line."[3] This prelude to the analysis of Tarde's position on force and substance is important as it makes it clear that his claims about physical forces need to be taken with a grain of salt. This will at times be difficult to remember because he can make his point that physical forces have a psychological basis quite forcefully, for which he finds evidence in Leibniz as well:

> Whatever Leibniz may have said in favor of this analogous distinction [between force as describing the possibility of a fall of a heavy object but not the possibility of electrification by friction], I cannot help myself, despite the respect due to such great authority, from

[1] See for example Tarde, *Laws of Imitation*, 1.
[2] Ibid., 17–18.
[3] Tarde, *On Communication and Social Influence*, 142.

> finding it arbitrary and of illusory origin. It is indeed to this philosopher that we owe the extension of the feeling of effort, read of desire, to external nature, and the limitation of force within the domain of effort, whether experienced within ourselves or induced from outside. The force of which he speaks, he says, in his letter to Bonnet [*sic*], the force which he boasts of having brought to light, differs from the faculty of the school, in that the latter is not "only a proximate possibility for acting, but dead, so to speak, and ineffective in itself" while the force in question is in some way average between the faculty and the action and has in it a certain effort, *conatum involvens*; also it is led to action of its own accord, provided that nothing prevents it: which can be clarified by the example of a heavy suspended body or a drawn bow. How obvious is the psychological source from which these ideas of effort, of inclination and hindrance are drawn! Force, in the Leibnizian sense, means tendency to action, and tendency to action means desire or will to act. The subjective notion of desire or will is therefore the core, the essence, the hidden soul of the Leibnizian, that is to say almost universal, idea of force.[4]

While I think it is important to keep in mind that Tarde means much of what he says about physical forces to be an explanation by analogy, what I take him firmly to believe is that underlying the physical phenomenon of movement is "a hidden force or attraction" from which he concludes that "in nature, as in society, Repetition, i.e., Action, proceeds, I cannot repeat it too often, *ab interioribus ad exteriora*."[5] I take this to be a central similarity between his and Leibniz's theory of force, as both thinkers are clearly opposed to the notion of a vital principle located outside of matter and responsible for its motion.

However, it is also a notable difference that Tarde seems to agree with Newton that there is such a thing as attraction among bodies, whereas Leibniz rejects this outright. Since Tarde does not discuss this point any further, I merely note this difference as a point of interest, particularly because Leibniz criticizes Newton for granting bodies a power of attraction at a distance "in order to maintain a view which is no less inexplicable, namely the possibility of matter thinking in the natural order of things."[6] There is no evidence that Tarde thought matter could think, but

[4] Tarde, *Maine de Biran*, 100.
[5] Tarde, *Laws of Imitation*, 212.
[6] Leibniz, "From a Letter to Lady Masham, on Thinking Matter (30 June 1704)," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 301.

he may not have been opposed to this notion, given that he grants intelligence to bees, ants, and cells alike.[7]

Lastly, I note that Tarde does not clearly distinguish between the concepts of force and effort and those of will and desire, as we could already see in the passage cited above. This raises a problem for his account of force and his criticism of Leibniz, as we will see.

1) Force

Tarde develops his theory of force in direct contrast to that of Leibniz. In *Maine de Biran*, Tarde says, in summary, that the fundamental difference between his and Leibniz's theory of force is that the latter's is modeled on desire, while Tarde advocates for a theory of force based on belief, which has the benefit of making his theory more inclusive, so that it can capture phenomena of sensations as well as possibilities of actions, which he claims Leibniz's theory excludes. Thus, this section is divided into three subsections, one dedicated to Tarde's argument that force cannot produce sensations if we define force in relation to desires only, another explaining why the definition of force should allow for *possibilities* of phenomena also to be describable as forces, and finally, the argument to explain why Tarde prefers belief over desire as the basis for the definition of force. Before I begin, however, I need to pre-empt a possible counterargument to the claim that Tarde disagrees with Leibniz's alleged position that we should conceive of force in the image of desire, as there are passages in *M&S* that seem to suggest he may have changed his mind on this issue since *Maine de Biran*.

In *M&S*, Tarde argues that both belief and desire are forces. He contrasts these two forces with a "vital principle" that would posit the origin of movement and change outside of matter.[8]

[7] Tarde, *Monadology and Sociology*, 23.
[8] Ibid., 7.

Belief and desire are present all throughout matter as its static and dynamic forces, respectively. But if both belief and desire are forces, one static and the other dynamic, how can we reconcile this with his position in *Maine de Biran* where he argues that force should be defined on the basis of belief instead of desire? When trying to answer this question, let us also keep in mind that *M&S* postdates *Maine de Biran* by four years. We might thus consider *M&S* as Tarde's definitive word on the subject, reflecting his fully developed views. Yet, *Maine de Biran* covers the topic of force in disproportionately greater detail, which speaks for the view that it might be the place to look for Tarde's most nuanced articulation of his position. I intend to show that the position Tarde presents in *Maine de Biran* is indeed his considered view.

At first, Tarde seems in *M&S* to continue to hold the view established in *Maine de Biran* that favors belief over desire as the basis for the definition of force, as he says: "We may rightly be amazed that, among so many philosophical conjectures, it has occurred to nobody, at least explicitly, to seek in the objectification of belief rather than of desire the solution to the problems of physics and of life."[9] However, immediately following this passage, Tarde points to evidence of the fact that unknowingly, it has occurred to us that belief is the solution to key problems in physics because "we conceive of matter—coherent and solid substance, satisfied and at rest—[…] in the image of our *convictions*, as we conceive of force in the image of our efforts."[10] This passage suggests that belief (of which conviction is one mode) is the key to understanding matter, but that it is effort upon which we model force. Admittedly, Tarde uses "efforts" (*efforts*) here and not desire (*désir*), a term he does not define and does not use again with this connotation in *M&*S. However, we know from Tarde's 1880 essay "Belief and Desire" that effort is closely associated with desire: "But one must be aware that, once all accompanying muscular

[9] Ibid., 19.
[10] Ibid., 20.

action is eliminated, the purely psychological aspect of effort is desire."[11] Consequently, force seems closer to desire than to belief, judging from this passage in *M&S*. We might thus argue that Tarde changed his mind and that he came around to what he claims Leibniz's theory of force to be, i.e., one based on desire, while belief informs the conception of substance.

However, I hold that we can best understand the above passage as conveying a common, yet unconscious conception of matter and motion that Tarde merely observes but does not fully endorse. Those who conceive of matter in the image of belief are correct to do so, and those who conceive of motion in the image of desire are also correct, but only to an extent. What the latter are missing are two nuances that Tarde does not get into in *M&S* but that feature prominently in *Maine de Biran* and other works. To conceive of force in the image of desire, Tarde argues, allows force to be responsible only for producing motion but not other phenomena, such as sensations. Adding belief also permits conceiving of mere possibilities of phenomena as force. If we were to limit the basis of force to desires, we could only see force as a tendency to act in instances in which the circumstances are there for it to display this tendency, e.g., celestial bodies could only reveal their gravitational force at an appropriate distance. But since this tendency exists even in the absence of the conditions necessary for its expression, we should also call force the mere faculty that allows force to exert itself under the right conditions. Calling it force only at the moment when the right conditions are in place for it to reveal its tendency to act is an arbitrary cutoff.[12]

That said, when Tarde argues that force should be based on belief rather than desire, and also that belief and desire are both forces, he makes no firm claims regarding the nature of external, physical force but merely draws analogies, comparisons, and metaphors to the psychological

[11] Tarde, "Belief and Desire," 165.
[12] Tarde, *Maine de Biran*, 99–100.

environment. He generalizes the observations he makes regarding the psychological environment to form his hypothesis that force should not be assumed only to produce movement, but rather expanded to apply to other phenomena as well. This he achieves by making the foundation of force belief rather than desire, and by belief he means, at least in this context, the certainty that a phenomenon will occur if the conditions are right. He thereby does not dismiss desire as a force, or a basis for a definition of force; he merely claims there is more to it which belief is better able to capture.

The preference for belief further stems from his conviction that desire is directed towards certitude, the maximum state of belief: We learn from "Belief and Desire" that "desire essentially has certitude as its object."[13] A similar assertion features in *M&S*, where Tarde says "*the tendency of monads to assemble* […] expresses, I believe, the need for a maximum of expended belief. When this maximum is attained at the point of universal cohesion, then desire, now entirely fulfilled, will be annihilated, and time will come to an end."[14] I understand this to imply that belief and desire always come in pairs—there can be no desire without a belief toward which the monad strives.

Tarde's equation of this annihilation of desire with the end of time is remarkably Buddhist in its undertone, with the elimination of suffering and the achievement of eternal bliss.[15] This affirms that in *M&S* Tarde remains of the view he expressed thirteen years earlier in "Belief and Desire" that once all desires have been fulfilled the result will be the maximum state of belief, which he identifies with certitude, and that this is what desire strives for all along, making desire the tendency to teleological movement, as having the purpose to maximally spread the monad's

[13] Tarde, "La Croyance et Le Désir: La Possibilité de Leur Mesure," *Revue Philosophique de La France et de l'Étranger* 10 (1880): 11, JSTOR.
[14] Tarde, *Monadology and Sociology*, 34.
[15] Ibid., 34, 66.

beliefs. This allows us to read desire as a teleological force, giving monads an internally structured directionality: they aim to spread and consolidate their beliefs until certainty is maximized. Tarde himself does not elaborate this dynamic into a full theory of agency, but the implication is there—at least latently—that monads act not just because they are influenced by other monads, but because they strive. This interpretive link will become important when I later use it to model autonomous agency in AI.

Tarde also does not further illuminate what that point of universal cohesion is at which the monad arrives when the maximally expended belief is achieved. I shall try a brief explanation. We know that Tarde's monads are far from isolated. In fact, they can achieve nothing on their own and as much as they compete in their attempts to achieve domination they are also highly collaborative, as they use any monad they can subdue as a medium through which their beliefs are disseminated.[16] From the ensuing struggle emerges the universe, including apparently inorganic matter, individuals, institutions, and societies. I take the point of universal cohesion to be where the monad's interactions reach an optimal level, with each spreading its beliefs as far as possible given the competition. That seems to describe a state of equilibrium that I understand to be devoid of change, implying that time has come to an end.

The similarities between Tarde and Leibniz at this point are that desire and appetition are responsible for the goal-oriented striving of monads, and that the goals are in both cases selfish yet at the same time unwittingly contributing to a greater good. The difference is that Tarde specifically ascribes to his monads the drive to spread their beliefs as widely as possible, so as to make their view of the world the universal one (although, as I argue, it is not the monad that is doing anything; the monads are merely a substrate that we stipulate as the doer while in reality

[16] Ibid.

all the activity of imitating and opposing belongs to the beliefs and desires). In contrast, the self-interestedness of Leibniz's monads drives them to pursue their own good, meaning increasing pleasure and decreasing pain.[17] The greater good Tarde conceives of is a spiritual state of eternal bliss, while for Leibniz it is the best possible world God created.

We can understand Leibniz's monads as having an agenda in this world, since their states are in some sense determined by the fact that God created the best possible world, populated with the best compossible monads which he foresaw to behave in the precise way they do indeed behave. The notion of the best compossible monads is not one I can be certain Tarde knew, while it is conceivable that he put together what Leibniz meant with regard to God having created the best possible world and each monad contributing to this world from these passages of the *Monadology*:

> Now, as in the Ideas of God there is an infinite number of possible universes, and as only one of them can be actual, there must be a sufficient reason for the choice of God, which leads Him to decide upon one rather than another.
> And this reason can be found only in the fitness [*convenance*], or in the degrees of perfection, that these worlds possess, since each possible thing has the right to aspire to existence in proportion to the amount of perfection it contains in germ.[18]

I admit, however, that the monad's desire to change from one perception to the next features more prominently in the *Monadology* than the aspiration to contribute to the best possible world.[19] Yet, a careful reading reveals even in the *Monadology* the notion that a monad's appetition not only drives the change from one perception to the next but also drives the higher goal of contributing to the best possible world. Lacking God's omniscience, the monad does not know it's doing that though; then again, neither do Tarde's monads know that they move towards

[17] Leibniz, "Of Ideas," 163.
[18] Leibniz, *Monadology*, paras. 53–54.
[19] Ibid., 15.

the universal point of cohesion, characterized by a state free of all evil.[20] Both authors agree that appetition and desire need not be conscious states of mind, hence I feel justified in taking the monads' drive towards a state of goodness, albeit understood quite differently, as an aspect of Tarde's theory that is not entirely alien to Leibniz.[21]

I concede that this is a loose commonality. We seem forced to be satisfied with the observation that both appetition and desire are active forces responsible for change; beyond that, comparison seems to bear little fruit, as I don't see that Tarde ever speaks of a monad's desire driving it towards a new belief. His focus is firmly on monads furthering the propagation of their own beliefs. New beliefs are formed in the process of assembling with other monads for that purpose and in that process a given monad is inadvertently subjected to new beliefs that it may reject or assimilate. There is also the further and possibly more meaningful difference that Leibniz anchors desire or appetition in the inner life of the monad, whereas Tarde conceives it as a force in a network that works to spread beliefs by imitative rays. Thus, what appears as disagreement may in part reflect incompatible background assumptions about individuality, interiority, and causation.

As to the question why belief should be preferred over desire as a basis for the definition of force, we must bear in mind that desire cannot be explained without reference to belief, whereas belief does not depend on desire in a similar way. This is supported by the fact that, for Tarde, force also encapsulates all *possibilities* of phenomena, without requiring a tendency to action. Hence, forces that never cross the threshold from possibilities to realities may nevertheless exist as possibilities so long as we can be certain that they would manifest if the appropriate conditions were met.

[20] Tarde, *Monadology and Sociology*, 66.
[21] Leibniz, *Monadology*, para. 14.

a) Force and Sensations

Tarde's key argument for why sensations cannot be captured by Leibniz's definition of force is because they cannot be reduced to movement. He says: "were it proven that a given sensation of red corresponds to the right-to-left rotation of a given cell of the gray matter of the brain and to a given sensation of blue the left-to-right rotation of another cell, this discovery would not advance us in any way, since a sensation whatever it may be will always remain a thing absolutely without any conceivable relationship with any movement whatsoever."[22] Such an equation of sensation and movement would mean that we could explain sensations without referring to consciousness, which Tarde elaborately rebuts in *Maine de Biran*. The example borders on caricature and may not represent the strongest version of the reductionist position. However, Tarde's broader point is directed not only at an outdated account of physics but at any explanatory framework that seeks to eliminate consciousness from its account of sensation.

A further argument against a mechanical, movement-based view of sensation is that sensations are indecomposable phenomena, very much distinct from the composable physical condition accompanying them.[23] I take his point to be that something that does not have parts cannot move. Quoting the *New Essays on Human Understanding*, Tarde notes that Leibniz holds the view that there are unconscious sensations, for example during sleep.[24] Tarde seems to take this to mean that for Leibniz sensations can be reduced to movement and thus they would qualify as forces under Leibniz's definition of force. But since Tarde believes Leibniz is wrong and sensations necessarily have an element of consciousness which cannot be reduced to movement,

[22] Tarde, *Maine de Biran*, 61.
[23] Ibid., 91.
[24] Ibid., 74. Note that the passage Tarde purports to cite does not in fact stem from Book II, Chapter 1. However, that chapter indeed discusses insensible perceptions and provides several arguments for this position that relate to sleep.

this would exclude sensations from a definition of force that only explains how movement comes about.

There is a problem with Tarde's argument against Leibniz's position. First of all, Tarde does not seem to leave room for an alternative interpretation of Leibniz, that without equating motion and sensation Leibniz sees an exact correlation between certain motions in a subject's body and the sensations experienced. Furthermore, Tarde seems to believe that allowing for insensible sensations implies subscribing to a mechanistic account of consciousness, presumably because if we allow for sensations that are not perceived, they have no element of consciousness to them, hence they must be purely mechanical. This is a misrepresentation of Leibniz's position. Leibniz says it himself in the *New Essays on Human Understanding* from which Tarde quotes elsewhere: "a sentient or thinking being is not a mechanical thing like a watch or a mill: one cannot conceive of sizes and shapes and motions combining mechanically to produce something which thinks, and senses too, in a mass where [formerly] there was nothing of the kind—something which would likewise be extinguished by the machine's going out of order."[25] While it is certainly true that Leibniz holds insensible sensations to be inaccessible to the individual, finite consciousness, he believes that "they could be known by a superior mind."[26] I believe this is a counterargument Leibniz could use to escape Tarde's criticism of his account of insensible sensations. (I discuss further issues with Tarde's interpretation of Leibniz's position on insensible sensations below.)

Tarde would likely not be very impressed with such a response. What is more, he has additional arguments for why Leibniz's position is mistaken and these would not be addressed by stipulating a superior mind that does the perceiving. Tarde quotes a passage from Maine de

[25] Leibniz, "Preface," paras. 66–67.
[26] Ibid., para. 55.

Biran's *Essai sur les fondements de la psychologie*, which summarizes and explains Leibniz's position on this matter:

> "The force to act and represent, or to represent by acting, constitutes the essence of the soul." This force is capable of more or less; internal apperception (or the self) is not always and essentially joined to all perception, and reflection, which constitutes the very thought by which the subject makes himself present to himself in the inner self by separating himself from everything that is objective, does not belong to all souls nor to the same human soul at the same time. From this we understand that there can be sensations or affections without consciousness, to which animals and man himself are reduced, in the early stages of life, as in several states where the sensitivity, the perceptibility obscures, predominates and absorbs everything….[27]

I take this to mean that (Maine de Biran takes Leibniz to say that) the soul's ability to represent is not (merely) a passive faculty allowing it to perceive phenomena, but that it is also capable of actively reflecting on them, a process by means of which the soul becomes aware of the phenomena as well as of itself, because the soul must distinguish itself from that which is the object of its perception in order to perceive. However, it is not necessary for perception that apperception, or self-awareness, accompany a perception, allowing for perception to be something of which animals are capable as well as humans.

Tarde, on the other hand, makes the case that there is no sensation without consciousness, or in other words, no sensations without a self.[28] What Leibniz said of reflection, according to Maine de Biran, namely, that it is responsible for separating what is objective from the self, Tarde folds into sensing: "to feel is essentially to differentiate. Any difference comes from there, directly or indirectly. Therefore, to admit unfelt differences into sensation is to strike at its very source the faculty of discernment."[29] He means that sensation essentially requires differentiation and that without it there simply is no sensation. There cannot be a "more or less" when it comes

[27] Tarde, *Maine de Biran*, 79.
[28] Ibid., 87.
[29] Ibid., 92.

to the consciousness of sensation because the difference between consciousness and unconsciousness, he insists, is not one of degree. Although one can transition from blue to yellow by gradual changes, that doesn't make blue a type of yellow, and likewise just because dialing down consciousness gradually will eventually produce an unconscious state, that does not mean unconsciousness is the minimum of consciousness. Or at least, Tarde concedes, the difference between consciousness and unconsciousness is as great as that of a straight line and a circle, since a straight line is the circumference of a circle with an infinite radius. But in any case, even if we saw unconsciousness as a continuation of consciousness as we might see a straight line as the circumference of an infinite circle, this still does not mean that sensations persist in the absence of consciousness.[30]

Tarde bolsters his position by explaining that the indivisibility of sensations enables the perceiver to distinguish between inside and out. He advances two examples, that of a nebula of stars and of milk or ink. Both phenomena appear continuous to the naked eye but by means of a telescope, in the first case, and of physical hypotheses in the second, we can judge them to be aggregates. In other words, these deductions about internal structure based on memories of prior sensations aided by a telescope or by scientific understanding are not sensed directly but are inferred. Thus, Tarde attributes these differentiated components not to the sensation itself, an internal fact, but to the external reality—the nature of the substance. He thinks this is "perhaps one of the primary causes of the judgment of exteriority" and that it entitles him to claim that belief is "the essential link from inside to outside, from subject to object. Therefore the asserted insensible must be an external fact as well as the affirmed invisible. This insensible cannot therefore be a sensation, that is to say an internal fact."[31]

[30] Ibid., 87–88.
[31] Ibid., 93.

Further clarification is required here. Tarde points out a contradiction in the idea of unfelt sensations being both internal and external, the position he ascribes to Leibniz. Sensations by nature are internal; they are experiences felt by a subject. If these sensations are unfelt, they are not experienced as sensations. Thus, labeling them as external implies they are observable or existent in a way that excludes the internal experience of sensing. Tarde considers the following analogy:

> Now, from the fact that invisible corpuscles can, by agglomeration, become a visible body, does it follow by analogy that infinitesimal insensible sensations can, by combining, become a sensitive sensation? No. For these unfelt sensations would be both an external and an internal fact; interior as sensations; exterior as unfelt. It's contradictory. It is the negation of the fundamental difference, the source of all others, that of the outside and the inside.[32]

Suggesting that unfelt sensations can combine to form a felt sensation negates a fundamental philosophical distinction—the difference between the external (observable, physical phenomena) and the internal (subjective experiences such as sensation).

Tarde then introduces the concept of belief as a transitive cause that connects internal experiences with external realities. Belief allows individuals to perceive things that are not immediately sensible, either because they are very far away or microscopically small. Belief acts as a bridge transitioning from the subjective and internal to the objective and external, allowing the mind to grasp realities beyond direct sensory experiences. It follows from his understanding of belief that what is insensible must be considered an external fact, such as atoms or sound waves. Just as we accept the existence of invisible physical phenomena on the basis of a scientific theory, we accept insensible phenomena as external, objective facts. Given that insensible phenomena are external and not part of internal sensation, Tarde concludes that they cannot constitute sensations. Sensations are inherently internal; they are felt and experienced by

[32] Ibid.

the subject. Anything that remains insensible cannot belong to the realm of sensation merely through aggregation or combination because it lacks the inherent quality of being felt.

Having clarified Tarde's thought on unfelt sensation, it is time to draw a parallel between Tarde and Leibniz on this point, because, as I mentioned above, Tarde seems to misrepresent Leibniz's thought on this matter. This is surprising because he seems to have been aware of Leibniz's "Meditations on Knowledge, Truth and Ideas," (1684), the key text in which Leibniz introduces what he calls blind thought or thoughts that are not conscious. Tarde seems to reference this text when addressing "the oldest and most vulgar argument" in favor of unfelt sensations, remarking that "Leibniz had already said this in other words in more specious and scholarly forms."[33] The argument to which Tarde refers is that a perception of a green forest from afar is supposed to comprise "an infinity of small impressions of which we are not conscious."[34] Here is the passage Tarde may have had in mind when he says Leibniz expressed this idea as well:

> Furthermore, when we perceive colors or smells, we certainly have no perception other than that of shapes and of motions, though so very numerous and so very small that our mind cannot distinctly consider each individual one in this, its present state, and thus does not notice that its perception is composed of perceptions of minute shapes and motions alone, just as when we perceive the color green in a mixture of yellow and blue powder, we sense only yellow and blue finely mixed, even though we do not notice this, but rather fashion some new thing for ourselves.[35]

We see from this passage that Tarde is certainly right to claim that Leibniz embraces unconscious perceptions, and not only in the state of sleep. If I am correct that it is this passage Tarde had in mind when he says that Leibniz also relies on the "most vulgar" argument for unfelt sensations, we can conclude that Tarde did not only take issue with Leibniz's position that there

[33] Ibid., 84.
[34] Ibid.
[35] Leibniz, "Meditations on Knowledge, Truth and Ideas (1685)," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 27.

can be unfelt sensations in sleep. He also denies that there are perceptions we do not notice, such as yellow and blue powder elements mixed into a mass we perceive as green.

Let's turn to Tarde now to see how his account is different from that of Leibniz. In the following passage Tarde responds to an argument for unfelt sensations based, seemingly by analogy, on the phenomenon of an idea arising from another without an immediately explicable connection, but upon further reflection the connection can be made. Reflection brings to light connections that one was not conscious of at the time the associated idea arose, hence they are "unconscious ideas." Tarde rejects this argument, however, by making a distinction between brain traces and (conscious) ideas. He argues that associations can occur between brain traces or mental images without necessarily producing conscious thoughts. Tarde suggests that while all the connected brain traces were activated when one idea is derived from another, only the first and last of these traces produce conscious ideas. He emphasizes that such cerebral activity is constantly occurring, with many potential thoughts "ascending" towards consciousness, but only a few actually reaching it.[36]

This explanation seems at first to apply reasonably well to Leibniz's example of the perceived green that is composed of unsensed perceptions of blue and yellow finely mixed, except that increased attention probably would not increase the chance consciously to perceive the mixture's ingredients. However, this difference is essential. While Leibniz could equally validly have chosen an example where additional effort could have resulted in a more differentiating perception of its components, and in fact many such examples are provided in *New Essays on Human Understanding*,[37] I think Tarde would agree with Leibniz regarding those examples, but not in the case of the green mixture or sensations in sleep. Here is why.

[36] Tarde, *Maine de Biran*, 81–82.
[37] See for example Leibniz, "Of Ideas," para. 116.

For Tarde, brain traces are conscious activity taking place not at the level of personal consciousness but at the level of consciousness of the brain cells themselves. A key passage from *M&S* is helpful on this point. Tarde says: "the facts which have been used to support the hypothesis of unconscious sensibility, already striking enough in themselves, also serve to prove general conclusions considerably beyond this. They show that our own consciousness (that is, the directing monads or leading elements of the brain) has as its constant and indispensable collaborators innumerable other consciousnesses whose modifications, external with respect to us, are for them internal states."[38] This important passage will receive further attention later when we discuss Tarde's theory of consciousness in more detail. Suffice it to say for the moment that Tarde acknowledges different levels of consciousness within the brain of the sensing individual. Whenever a brain trace reaches the level of personal consciousness, there is a penetration from the level of the cell's consciousness to the self's consciousness, though in most instances the cell's consciousness remains external to personal consciousness.[39]

This is different from Leibniz's theory because Tarde does not agree that there is a personal unconscious where sensations remain unsensed. There is instead a consciousness of the brain cells and the occasional ascent from that level to the level of conscious sensation, during which a radical alteration of the cell's state occurs, namely, from being an internal modification within the brain cell's own consciousness to becoming a part of the self's conscious awareness. This explanation applies to the situation where brain traces fail to make it to the conscious level, as when we can't initially remember what connected one idea to another though on reflection we can bring the connecting idea to the surface.

[38] Tarde, *Monadology and Sociology*, 18.
[39] Tarde, *Maine de Biran*, 82.

Tarde has more to add that explains the case where we are not able to perceive some details which instead represent themselves as something different from the composing elements. Going back to the example of perceiving a green forest when there really is a multitude of green leaves, Tarde argues that our sensory apparatus adapts external stimuli to its own functional limits.[40] When looking at a forest, the sheer number of green leaves creates a collective stimulus that is moderated by our visual system. Just as the pupil regulates light or the vasomotor system regulates blood flow, our eyes and brain adapt to the complexity of the scene by simplifying it into a unified perception: not innumerable leaves but a single forest. The logarithmic nature of sensation means that as the quantity of stimuli increases (in this case, individual leaves), our ability to differentiate between them diminishes. This is similar to how the sound of 36 cannons does not seem 36 times louder than one cannon or how a millionaire doesn't notice the gain of one franc.[41] For Tarde, the perception of the forest is not the sum of countless tiny perceptions of individual leaves but rather a moderated, synthesized perception shaped by the limits of our sensory apparatus. He would reject the claim that we unconsciously perceive every individual leaf as a separate sensation. Instead, he argues that perception is fundamentally selective. The individual leaves are not "unfelt sensations" waiting to be integrated into a perception of the forest. Instead, our sensory system organizes the scene at a level appropriate to our perceptual capacities, bypassing the need to process each leaf distinctly. This scenario is different, I take it, from that in which there are conscious brain cell states, or brain traces, which occasionally ascend to the level of personal consciousness. In this case there are no brain traces of the leaves at all.

[40] Ibid., 85.
[41] Ibid., 86.

To summarize, Tarde holds that sensations are necessarily conscious, and since consciousness cannot be reduced to movement, as this would lead to an unacceptable thesis of identity, a theory of force that applies only to tendencies that produce movement, such as one based on desire, is too narrow. Instead, force must be based on belief because only belief, or that which makes us certain, can account for the differences between apparently continuous sense perception and an external reality that is composite. If we were instead to allow for unconscious sensations, e.g., for imperceptible sensations that combine into a perception, it would be unclear whether to attribute the composition of such external facts to external reality or to our sensations, thus obscuring their distinction.

b) Force and Possibility

Tarde believes that Leibniz bases his definition of force on desire that is able to produce motion, but thereby fallaciously excluding from his definition of force not only sensations, but also possibilities of action, i.e., properties that one cannot consider tendencies or desires.[42] What he seems to mean is this. Leibniz, like many mechanists before him, grounds force in a monadic striving that, once conditions permit, issues in motion. According to Tarde, the very choice of desire as the explanatory root reveals the concept's genealogy in muscular experience: we first feel our own efforts and resistances, then we project that proprioceptive schema onto nature.[43] However refined Leibniz's physics becomes, a definition built around striving continues to privilege movement. Force, on this classical account, is an aptitude whose paradigmatic effect is displacement, pressure, impact, and so forth. Tarde thus ascribes to Leibniz's definition of force a kinetic bias. Just like I observed earlier in this chapter when discussing unfelt sensations, Tarde

[42] Ibid., 97.
[43] Ibid., 103.

seems to falsely accuse Leibniz of a more mechanistic account of force than is warranted. And more fundamentally, he mischaracterizes the basis of Leibniz's theory: Leibniz does not define force in terms of desire, but rather justifies the existence of metaphysical force by analogy with the appetitive structure of our own mental life. His physical definitions of force—especially in the context of dynamics—are more technical and are not reducible to introspective psychology.

Tarde believes he can circumvent the difficulty he believes to have identified in Leibniz by once again relying on belief rather than desire as the basis of force. As we know, he defines force "as that which makes us certain."[44] What he means is that force is the reason for scientific certainty that an action would occur if the necessary conditions were present.[45] When Leibniz claims that force is tendency to act, Tarde interprets this to mean "the muscular sensation of effort and resistance, that is to say a tendency or obstacle to a movement" and believes this limits force to an aptitude to produce movement only.[46] As I said, this seems to misrepresent Leibniz's account of force. While Tarde is right that Leibniz does exclude from the concept of force mere possibilities of action, Leibniz would likely disagree that this is a flaw: A possibility without an accompanying striving would not yet amount to force but only to a disposition toward an effect. For him, force by necessity requires a striving, but such a striving produces new perceptions as well as motions. Tarde would have known this from passages such as §11 and §22 of the *Monadology*, where Leibniz describes force as producing both motion and new perceptions.

What remains accurate in Tarde's reading of Leibniz is that the latter does not treat mere possibilities of action as themselves constitutive of force. Tarde finds this ontological restriction too limiting. He wants the concept of force to encompass any phenomenon whose occurrence is

[44] Ibid., 99.
[45] Ibid.
[46] Tarde, *Maine de Biran*, 103.

guaranteed under determinate conditions, regardless of whether anything is currently striving to bring it about. In contrast to Leibniz's account, which ties force to inner activity, Tarde defines it as the ground of predictive certainty—that is, as an aptitude to "produce a[ny] phenomenon whatsoever."[47]

To clarify the implications of this shift, Tarde offers a concrete example. Consider a piece of glass: the possibility that it will become positively electrified if rubbed with fur, he argues, deserves to be called a force just as much as the pressure it exerts on the surface it rests upon. Both phenomena—the electrification and the fall that would occur if the support were removed—are equally certain under the appropriate conditions. [48] Yet, Tarde claims, Leibniz would recognize only the latter case as involving a genuine force, since the pressure (when interpreted as a tendency to fall) aligns with his conception of striving. (On Tarde's account the pressure itself is not a force, but an action.[49]) The potential for electrification, by contrast, lacks any immediate striving and would thus fall outside the Leibnizian framework of force, Tarde maintains. He regards this exclusion as a symptom of the overly kinetic bias he detects in the classical account. His own definition, grounded in predictive certainty rather than appetitive striving (what Tarde calls desire), is meant precisely to restore such law-bound but non-kinetic possibilities to the domain of force. Yet, Leibniz, according to Tarde, would allow the pressure of the glass to be considered a force *only insofar as it introduces a tendency to fall* but not the possibility of electrification. Whether Leibniz would in fact recognize the pressure exerted by the glass—but not its potential to electrify—as a force is far from clear. Tarde assumes this

[47] Ibid.
[48] Ibid., 100.
[49] Ibid., 100.

distinction without directly justifying it, and it is not obvious that Leibniz's own dynamics or metaphysics would commit him to such a view.

Employing further examples, he illustrates how physical forces like chemical affinity and gravity manifest various potentials regardless of the conditions that would engender the effects. He points out that chemical elements possess the inherent capability to combine even when not currently in a state that allows for combination. Likewise, celestial bodies maintain gravitational potential despite vast distances where no appreciable force is exerted.[50] This inherent potential, which guarantees specific outcomes under certain conditions, underscores a fundamental certainty rooted in the properties of the elements themselves, not merely in their active tendencies or desires to combine. Tarde therefore suggests that force is better described by the certainty of potential interactions, a concept more aligned with belief in inherent capabilities than with a desire for action. Thus, Tarde defines force in his more detailed version as follows: "Every force, in fact, is essentially a bundle of possibilities, of an infinity of possibilities of a certain order; every law is essentially applicable, not only to the narrowness of the real, but to the immensity of the conceivable: and, if we refuse to recognize this, we ignore all regularity, all immutability in nature, all certainty in the science."[51] This of course raises the question how force so conceived could ever be estimated.

A further criticism of Leibniz's allegedly desire-based definition of force is that it presupposes an unconscious will, which Tarde insists is indemonstrable.[52] It is questionable whether Tarde understands Leibniz correctly on this point. My best guess as to where Tarde got the idea that Leibniz held such a view is the following passage to which Tarde would have had

[50] Tarde, *Maine de Biran*, 100.
[51] Ibid., 96.
[52] Ibid., 101.

access: “There are other efforts, arising from insensible perceptions, which we are not aware of; I prefer to call these ‘appetitions’ rather than volitions, for one describes as ‘voluntary’ only actions one can be aware of and can reflect upon when they arise from some consideration of good and bad; though there are also appetitions of which one can be aware.”[53] Note that Leibniz speaks here of unconscious *effort*, which he believes all monads express, while only those monads that are conscious in the first place can be conscious of any tendency they may have to act. He is clear, on the other hand, that there is no such thing as unconscious volition and would deny what Tarde calls unconscious will. As I alluded to at the outset of this chapter, Tarde is not entirely clear about the distinction between effort and will, but it seems he would be justified claiming only that Leibniz believed there is such a thing as unconscious effort but not unconscious will. We will see what implications this has for Tarde’s criticism.

Here again is the definition of force Tarde ascribes to Leibniz: “Force, in the Leibnizian sense, means tendency to action, and tendency to action means desire or will to act.” This formulation is clearly Tarde’s own, and it arguably simplifies Leibniz’s more nuanced conception of force, which distinguishes between physical definitions and metaphysical justifications. Still, Tarde uses this framing to underscore what he sees as an underlying voluntarist orientation in Leibniz’s thinking. To which Tarde replies:

> Not only is it illusory to imagine a spring as willing to unwind or a body as willing to fall, not only is it visible that, in its application to external forces, Leibniz’s distinction [that tendency is force but possibility is not] is based on the indemonstrable hypothesis of an unconscious will, but even in the sphere of consciousness itself, [this distinction] is only acceptable to a certain extent and in no way justifies the preference given to the desire-reaction over the belief-reaction, to will over judgment, to the gross tension of the muscles over the intellectual grasp of truth, in the choice of the prototype of force.[54]

[53] Leibniz, “Of Ideas,” para. 173.
[54] Tarde, *Maine de Biran*, 101.

Given that Leibniz did not intend to limit the application of force thus defined to the internal world of mental life, the desire or will to act must also be something ascribable to the external world, which according to Tarde leads to the misconception that a wound spring has a will to act. Clearly, Tarde's criticism goes beyond an accusation that Leibniz is anthropomorphising force. He insists that a definition of force that excludes the possibility of phenomena arising and only includes tendencies to act necessarily implies an unconscious will. To me, this seems to be a misrepresentation of Leibniz's position resulting from the fact that Tarde makes no clear distinction between will and effort.

Tarde himself explicitly argues that belief as well as desire are possible without consciousness: "Belief, moreover, like desire, presents, I repeat, this too little noticed privilege of being able to be conceived without contradiction as susceptible to unconscious states, and, by the character which distinguishes them from sensations, these two modes of the soul show themselves to us as eminently suitable for being objectified."[55] If Tarde's point is that Leibniz unduly anthropomorphises his definition of force because it relies on the notion of an unconscious will, and Tarde at the same time equates will with desire in the definition of force he ascribes to Leibniz, we face the problem that Tarde himself makes a clear case for belief and desire being objectifiable and not requiring consciousness because they can exist without being felt.[56] Does this not mean that in a manner of speaking a spring desires to unwind and that Tarde would be subject to the same criticism of anthropomorphising? We can hardly solve this by pointing out that Tarde wants to define force on the basis of belief, in which case we could describe the case in terms of the certainty that the spring would unwind if the appropriate conditions were met. However, as I showed earlier, desire is also considered a force, the

[55] Ibid., 116–17.
[56] Tarde, *Monadology and Sociology*, 19.

preeminent dynamic force in fact, and Tarde would have to allow an explanation of physical motor forces *also* on the basis of desire, as he seems to simply deny that desire is *alone* capable of accounting for everything that should be defined as force.

While Tarde never explicitly says that animals, plants, or inorganic matter possess beliefs and desires, he certainly rejects claims to the effect that bees and ants do not have intelligence.[57] In fact, he strongly leans towards endowing all matter with intelligence.[58] But at the same time he makes it clear that he does not advocate "for the teleological principle" that would make all nature driven by one "thought or will," which Leibniz would also reject.[59] I am forced to read between the lines here because Tarde leaves it at that. But I feel confident in concluding that Tarde, if he were pushed on this point, would allow that animals, plants, and inorganic matter have beliefs and desires as the forces that direct their actions, hence their changes reflect a multiplicity of teleological directions rather than a single teleological principle governing all of nature. He would perhaps also hasten to tell us, as he does in the passage following the one just discussed, that we are well advised to remember that the insights we gain based on the limited data of external observations and the analysis of behavioural patterns—whether in human, animal, insect, or otherwise living beings—are of a "purely symbolic nature" and that embracing a monadological approach to the explanation of life must render us ever aware of that truth.[60]

If, with Tarde, we ascribe desire to inanimate objects, we have to find a way to distinguish between desire and will that makes sense of his argument. Tarde maintains that will always goes hand in hand with consciousness, which rules out will as the basis for the definition of force for him. If one wishes to apply the notion of force to the inanimate world, it must be by basing the

[57] Ibid., 23–24.
[58] Ibid., 25.
[59] Ibid., 24.
[60] Ibid., 25.

definition of force on desire instead, which apparently does not require consciousness and hence avoids anthropomorphism. We seem to have the basis for such an interpretation of desire in the following passage where Tarde says: "desire as desire, just as the pressure of water as pressure, is a fact, a complete action of its kind, and not a force," adding the qualification that desire is a force insofar as it is a necessary condition for a future action.[61] That passage could be read to mean that "desire as desire" only describes what the common use of the term suggests, desire felt by a conscious being. Supporting the narrow understanding of desire in this context is the example that immediately precedes this passage of someone desiring to go for a walk, suggesting that desire means something consciously experienced. Tarde can then be taken to mean that he would ascribe desire to objects in the external world, but not "desire as desire," only desire as a condition for a future action. We can then say that when Tarde gives Leibniz's definition of force—the "tendency to action, and tendency to action means desire or will to act"—he uses the terms will and desire interchangeably and means "consciously felt desire or will."

A further question then arises: Why should we not be as generous with Leibniz as we were just now with Tarde and allow for an understanding of will in two different ways, one conscious and the other unconscious, hence suitable for the animal and inorganic world? Indeed, Tarde concedes that the idea of an unconscious will is less egregious than that of unconscious sensations: "Furthermore, after admitting unconscious sensations, we do not see why our author would refuse to admit an unconscious effort. This last notion is much more intelligible and plausible than the first."[62] Tarde nevertheless forcefully rejects the notion of an unconscious will, arguing that it leads onto the slippery slope towards a philosophy of identity where the distinction between the physical world and the "moral" world, i.e., the mental or spiritual world,

[61] Tarde, *Maine de Biran*, 102.
[62] Ibid., 77.

is lost. Tarde believes this is not a danger with desire, as desire is a quantitative force of the soul, whereas will, although derived from desire, apparently is not:

> Belief and desire give rise to affirmation and will: But if, among our internal states, distinct *ex hypothesi* from sensation, there were to be found some which vary quantitatively, as I have attempted to show elsewhere, this singular character would perhaps allow us to attempt to use them to spiritualize the universe. In my view, these two states of the soul, or rather these two forces of the soul which are called belief and desire, whence derive affirmation and will, present this character eminently and distinctly.[63]

Since I discussed the quantitative nature of belief and desire previously, I focus now solely on the question of how will relates to desire. Ever since his early essay "Belief and Desire," Tarde held that will is the combination of belief and desire.[64] He repeats this claim in *M&S* where he says "will is a combination of faith [*du foi*] and desire."[65] There must be more to will than just combining belief with desire, otherwise will and affirmation would be the same, which we know is not the case, as other passages link will to desire and affirmation to belief.[66] Consciousness is the obvious candidate for what must be added, as far as Tarde is concerned, but the question we are trying to answer is precisely why it is inconceivable that there is no unconscious will when this is permitted for desire.

With less than full confidence, I suggest that beliefs indicate the monad's goals or purposes, which desires are directed at realizing. The will combines belief and desire into a power to move in a purposive direction, but, as I explain in a moment, also in a different direction. Everything, including a spring, has a purpose or goal. It may be given by nature, e.g., an acorn's goal of becoming an oak tree, or it can be introduced by human action, as for example a spring under tension. This purpose will be achieved in the appropriate circumstances without needing any

[63] Tarde, *Monadology and Sociology*, 16.
[64] Tarde, *On Communication and Social Influence*, 164.
[65] Tarde, *Monadology and Sociology*, 19.
[66] Tarde, *Maine de Biran*, 110.

exercise of will. When Tarde says something like "the movements of bodies are types of judgments or objectives formulated by the monads," he means that bodies express the monads that determine their movements.[67] This certainly appears to require a kind of mental activity, although perhaps not consciousness. A footnote to that passage clarifies this. "According to Lotze," Tarde says, "if there is anything spiritual in the atom, this must be pleasure and pain, rather than a concept; I maintain exactly the contrary." He is referring to a passage where Lotze says, "If there is anything spiritual in an atom of material mass, we need not suppose that it has any concept (*Vorstellung*) of its position in the world, or that the powers it exercises are accompanied by any effort (*Strebung*); but we may affirm that it inwardly perceives the pressure or shock, the dilation or contraction which it undergoes in the form of a feeling of pleasure or pain."[68]

I read this to mean that an atom, because it has a dominant monad, has a concept of its role or purpose in the world, which is of course a belief. But it does not feel pleasure or pain because it does not sense anything. (Unfortunately, Tarde does not tell us whether he also disagrees with Lotze that the power the atom exercises is not accompanied by effort.) Denying pleasure and pain to an atom may be the key to Tarde's rejection of unconscious will, since it would make sense to reject unconscious will but not unconscious desire if we understood will always and necessarily to be directed towards pleasure or away from pain. But for movement alone, if all it requires is a representation (a different translation of the word *Vorstellung* in the passage from Lotze above) of one's position, consciousness is not a prerequisite. Leibniz would certainly agree that there is no consciousness required for a representation, as he himself argued that all monads

[67] Tarde, *Monadology and Sociology*, 17.
[68] H. Lotze, *Medicinische Psychologie oder Physiologie der Seele* (Leipzig, Weidmann'sche Buchhandlung, 1852), p. 134.

represent the entire universe even though not all monads have consciousness. If there is consciousness, however, there can be will. In humans, will enables action either in support of the natural beliefs and desires shaped by nature—such as maximizing genetic proliferation—or in pursuit of other beliefs and desires that deviate from nature's direct goals, prioritizing instead the pursuit of pleasure or the avoidance of pain.

What I like about this argument is that it rejects unconscious will for the same reason as Tarde rejects insensible sensations—because they must be sensed to be sensations. Similarly, if will is directed toward pleasure and away from pain, it can't exist without the ability to sense. I am encouraged in making this argument because in *Maine de Biran* Tarde seems to reject both insensible sensations and unconscious effort for related reasons:

> If it is possible to feel without feeling that one feels, despite an at least apparent contradiction in terms, […] it is a fortiori possible to strive without feeling that one is striving; and, from then on, consciousness considered as united in some way accidentally (and we do not know how) to effort, ceases to delimit the moral world, if this world exists wherever effort extends.[69]

What I like less about the reasoning I have just reviewed is that it doesn't fully resolve the concern that Leibniz may not agree with Tarde's definition of the terms he uses. As we have seen, Tarde felt at liberty to understand desire in two different ways, one that required sensation and one that didn't. But without Tarde being more precise about his terminology, I will let him take part of the blame for this matter remaining somewhat unresolved, although I hope I have been able to bring some clarity to the mystery.

Before I proceed to the additional arguments Tarde makes for why belief should be preferred over desire as the basis for the definition of force, I note that he believes he has found a passage that reveals that Leibniz, "with his mind perhaps more understanding than logical," in fact also

[69] Tarde, *Maine de Biran*, 77.

conceives of force, more specifically, his primitive force, as pure possibility.[70] Tarde is citing from a letter Leibniz apparently wrote to Bousset, but I regret having to repeat that I have not been able to find the cited passage, and the correspondence between the two seems limited to administrative matters of the church and questions related to Leibniz's dynamics. However, Tarde is not entirely wrong in his contention that primitive force appears to be linked to possibilities, although this is not how Leibniz usually speaks of it, at least judging from the *Philosophical Essays*. I found one passage that comes somewhat close to Tarde's interpretation: "Aristotle calls them *first entelechies;* I call them, perhaps more intelligibly, *primitive forces,* which contain not only *act* or the completion of possibility, but also an original *activity.*"[71] However, this passage connotes that the actual brings the possible into existence, not that it is the same as the possible. At the very least, we see that Tarde believed, rightly or wrongly, that his definition of force as including mere possibilities aligns with that of Leibniz. It does, however, seem more plausible to interpret Leibniz as saying that primitive force is always actual in every monad and not a mere possibility.

c) Priority of Belief over Desire

In order to understand the priority Tarde accords belief as opposed to desire when defining force, we need to dive deeper into what he calls "the great psychological bifurcation"[72] (in *Maine de Biran*) or the "eternal bifurcation" (in *Laws of Imitation*), namely the distinction between belief and desire, which "divides the whole universe in two."[73] Belief and desire are characterised as forces, representing the static and the dynamic, respectively, and they resurface

[70] Ibid., 104–5.
[71] Leibniz, "A New System of the Nature and Communication of Substances, and of the Union of the Soul and Body," in *Philosophical Essays*, ed. Roger Ariew and Daniel Garber (Hackett, 1989), 139.
[72] Tarde, *Maine de Biran*, 98.
[73] Tarde, *Laws of Imitation*, 146.

on every level of organization as different distinctions: matter and motion, organ and function, institution and progress, and space and time. (As discussed earlier, although Tarde treats both belief and desire as forces, he maintains that belief more fully captures the nature of force insofar as it encompasses possibilities, not merely tendencies.) At each level, these two forces become specific, and in this special sense of the word the forces are *created* on their respective level, but importantly have their origin on one level below that on which they manifest.

On the social level, invention and imitation make beliefs and desires specific, but their origin lies not in the social but in the world of life, as briefly discussed in Chapter I.[74] In other words, the physical requirements of life need first to be directed towards specific objects before they can become social forces. For example, the desire to smoke exists virtually before imitation proliferates it, but it only appears as a desire once tobacco has been discovered.[75] Here, we can draw a parallel between the desire to smoke that exists virtually before the discovery of tobacco and the capacity of a piece of glass to be electrified by rubbing with fur. The electrification exists as a mere possibility until the conditions for it are met. The two forces, belief and desire, that manifest in the physical world as "vibration-ruled molecular and motor forces," originate in what Tarde calls the "hypophysical world," which, as he explains, "some of our physicists call the world of noumena, others, Energy, and yet others, the Unknowable." Energy, he says, "is the most widespread name for this mystery. By this single term a reality is designated which, as we can see, is always twofold in its manifestations."[76] I take this reference to a twofold manifestation to mean that energy always manifests as both belief and desire, given that this passage appears in the context of Tarde discussing the "eternal bifurcation, which […] divides

[74] Ibid.
[75] Ibid., 96.
[76] Ibid., 146.

the whole universe into two." But in the following passage, he repeats what he had previously established in the essay "Belief and Desire," namely, that the "true and final object" of desire is belief.[77] As we see, Tarde views belief and desire as underlying all phenomena and that their distinct characteristics of static and dynamic force are thus observable on every level. On the physical level, matter manifests the static force of belief and motion the dynamic force desire. On the social level, institutions and progress manifest beliefs and desires. Institutions are formed by aggregations of shared beliefs, and progress ensues as a result of competing desires that strive towards different beliefs.

As far as humans are concerned, beliefs and desires play a special role, being responsible for the discovery of the ego, i.e., for consciousness. Tarde says beliefs and desires are "reaction[s] of the ego against impressions from without."[78] As such, they delineate the ego from the external world, though again belief, in the form of attributing, affirming, and judging, is supposed to be more decisive than desire or effort. Tarde claims that while effort contains the feeling of effort and simultaneously the feeling of resistance, this distinction would not be possible without the intellectual attribution of the felt resistance to the object and effort to the subject.[79] Consequently, Tarde claims:

> Probably, this intellectual force par excellence was the first streak of light in the darkness of unconsciousness in which we rested: it must have preceded even desire; because, before pursuing a goal, we must look at it. From the beginning of this strange dawn, this force acted to separate what belonged to the self, the pain or pleasure of effort, from what belonged to the non-self, the particular sensation of resistance as it was neither painful nor pleasant; and from this bipartite division dates our mind, which subsequently went on to divide and subdivide more and more.[80]

[77] Ibid., 147.
[78] Tarde, *Maine de Biran*, 98.
[79] Ibid., 109.
[80] Ibid.

Incidentally, this passage also supports my earlier argument that Tarde conceives of effort as inherently tied to pleasure and pain.

At this point, I want to raise the question whether Tarde found inspiration for his idea of belief in Leibniz's theory of monadology. When we look to the *Monadology* we see that Leibniz's account focuses on perception and its changes.[81] Of course there is also appetition, or primitive force, as we just saw, although this is not discussed in the *Monadology*. But let's see whether perception could have served as a model for belief. The two concepts are both mental states, the active principle of the monad changes both, and both effect the representation of the entire universe in the monad by virtue of the fact that their present state always contains all previous as well as future states. For Tarde, it is less clear precisely how belief contributes to the monad being "a universe *in itself*, not only, as Leibniz wished to argue, a *microcosm*, but the entire cosmos vanquished and absorbed by a single being."[82] But Tarde does believe there is an important difference between his position and that of Leibniz.

For Leibniz, each monad is a "microcosm"—a self-contained universe that mirrors the entire cosmos from its unique perspective with varying degrees of distinctness. He says that monads do not interact directly with one another; instead, they exist without windows, meaning they cannot be influenced directly by other monads. The harmony and interaction of the universe are due to the pre-established harmony among monads ordained by God at creation. This harmony ensures that each monad's internal state correspond perfectly with the state of all other monads, creating a coherent universe without requiring any physical interaction among monads. Of course, we know that Tarde challenges the idea of monads as closed entities, which he replaces with a relational concept of monads that penetrate and influence each other reciprocally. For Leibniz,

[81] Leibniz, *Monadology*, para. 17.
[82] Tarde, *Monadology and Sociology*, 27.

reality is a perfectly coordinated representation, predetermined and synchronized by God. By contrast, Tarde sees reality as a result of the interactions among monads, making it depend not on divine preordination but on the contingent outcome of inter-monadic relations. He thus extends the concept of the microcosm by suggesting that not only does each monad reflect the entire universe, they also exercise and respond to activity, expanding their sphere of action and unknowingly coordinating with all other monads to form complex societies.

Tarde obviously breaks with Leibniz in supposing that beliefs influence one another, but also by introducing the concept of shared beliefs resulting from mutual influence and forming the basis for societies, while Leibniz remains focused on the individual monad's perception of the world.[83] This communal aspect is not new and derives from Tarde's application of the monadic theory to sociology, merging this field with metaphysics. While his reliance on Leibniz in this context may appear surprising, given the latter's individualistic view of the monads, the explanation appears to be that Maine de Biran exerted great influence on Tarde, particularly in this regard and claiming to be following Leibniz, Maine de Biran being the first to apply Leibniz's monadology to sociological thought.

Returning to the question whether perceptions are the model for Tarde's conception of belief, one aspect of his theory that is not well captured by comparing it to Leibniz's thesis of perception as the basis of belief is that Tarde also calls belief a static force. Unfortunately, he says barely anything about what that means. My best guess is that belief has to do with the monad's resistance against influence by other monads that attempt to impose their beliefs. This would explain why Tarde makes belief responsible for institutions and desire for progress. Belief, once established, remains what it is and builds societal structures to protect itself. Change

[83] Tarde, *On Communication and Social Influence*, 82–83.

is introduced by desire striving towards different beliefs. This sounds nothing like perception. Instead, we could speculate that Tarde looked to Leibniz's dynamics and the arguments he makes regarding how bodies resist motion. Leibniz's disagreement with Descartes on that matter was well known and mentioned in the *New Essays on Human Understanding*, although Leibniz gives no clear account in that work of the monad's role in this resistance.[84] Given how little Tarde says on this matter, it is not justified to present Leibniz's position in any further detail.

To summarize the commonalities and difference between belief and perception, the most important concerns the formation of beliefs, which Tarde sees as interactive while for Leibniz perceptions arise not by external influences but rather directly by God, if in summarizing I may simplify a bit. As for their similarities, both belief and perception are mental states and both, in their different ways, represent the universe. I also noted that Tarde characterizes belief as a static force, which agrees with Leibniz's contention as well. For completeness, I should notice a further novelty Tarde introduces and which is central to how he conceives of relations among monads, namely, the role that "possession" plays in the context of activity. He says: "The elements are, certainly, agents as much as they are proprietors; but they can be proprietors without being agents, and they cannot be agents without being proprietors. Moreover, their action can be revealed to us only as a change in the nature of their possession."[85] I discuss this argument at greater length in the following chapter, and the concept of elements and how they relate to monads is the topic of the next section. For the moment, we can treat the terms as equivalent.

[84] Leibniz, "Of Ideas," para. 123.
[85] Tarde, *Monadology and Sociology*, 54.

This concludes the interlude comparing Tarde's understanding of belief to Leibniz's idea of perception, and I return to the topic of why Tarde gives priority to belief over desire as the basis for the definition of force.

We have seen that for Tarde, belief and desire are the building blocks of all of reality, with desire always in a supporting role for belief. On my interpretation of belief as the purpose of the monad and desire as its drive towards achieving the maximum proliferation of its world view, this suggests that desire plays a fundamentally secondary role—less a cause than a condition that must be met for belief to realize its effects. If force is the power that makes a particular phenomenon certain to occur given the necessary conditions, there is no role left for desire to play that is distinct from other physical conditions. As we have seen, Tarde himself says that desire is properly called a force when it is a condition for a future action. He poses the question, "In what way is effort a more essential condition [than physical conditions] and does it therefore deserve a different name, that of cause?"[86] He thinks not. We again face the issue that Tarde speaks not of desire but rather effort, which makes it difficult to say whether what he says here would hold true for desire as well. But it seems possible, given that he says, I repeat, that "once all accompanying muscular action is eliminated, the purely psychological aspect of effort is desire."[87] To me, this imbalance between the roles of belief and desire does not chime with the great bifurcation that Tarde describes, as it seemed there that the two forces play complementary roles. Furthermore, if Tarde is serious in his view that Leibniz conceded, perhaps somewhat reluctantly, that primitive force is nothing but pure possibility, it would seem that Leibniz's definition of force based on desire can include possibilities of phenomena, making it an

[86] Tarde, *Maine de Biran*, 106.
[87] Tarde, "Belief and Desire," 165.

argument against Tarde's own position. I leave the matter at that and close this chapter with a brief discussion of Tarde's concept of substance and its relation to force.

2) Substance

In *M&S* Tarde says: "the idea of force leads naturally to the idea of substance."[88] This is about the extent to which he deals with this subject in *M&S*, but thankfully *Maine de Biran* offers more insight. In the context of introducing his definition of force as "a bundle of possibilities," Tarde says this about substance:[89]

> By the properties or energies of matter in general, we mean possibilities of phenomena and, if we feel the need to relate these properties to a substrate, if the definition, both so profound and sinfully incomplete, given by Stuart Mill of matter: "Matter is only a possibility of our sensations" does not satisfy us, it is because we necessarily lend to these material possibilities a *background* [*fond*] analogous to that which they themselves provide to material phenomena: so that, after having supplemented these phenomena with these possibilities and judged this addition indispensable to the explanation of the former, we also deem it necessary to explain the existence of these real possibilities by the hypothesis of something which is conceived as the possibility of other purely virtual possibilities. If we think about it, we will find nothing more at the bottom of the idea of substance.[90]

This text is enough for a cursory understanding of Tarde's theory of substance. Defining force as something that exists as possibility prior to and independently of activity, Tarde opens the door to a conception of substance as the background or foundation of that force independently of action. He says that we deem such a relation to be necessary, that we necessarily regard material possibilities as such a foundation for phenomena, apparently implying that the introduction of a concept of substance is a psychological need we have when faced with the insight that force encapsulates possibilities of phenomena. Tarde's concept of substance is therefore derived from his definition of force paired with our need for some foundation for the power of force. In this

[88] Tarde, *Monadology and Sociology*, 20.
[89] Tarde, *Maine de Biran*, 96.
[90] Ibid., 97.

sense, Tarde's concept of substance is what I suggest his definition of monads is as well—a hypothetical entity equipped with the power required to explain change and movement.

Having concluded the analysis and comparison of the concepts of force and substance in Leibniz and Tarde, Chapter V addresses the remaining points of interest for my inquiry into whether we can rightly consider Tarde as Leibniz's successor.

Chapter V: Was Tarde Leibniz's Successor?

Having explored key characteristics of Leibniz's monads in Chapters III and IV, we are now in a position to determine to what extent Tarde's monads are comparable to Leibniz's, over and above their role in the explanation of force, substance, and consciousness discussed in Chapter IV. While this chapter does not directly advance the argument around AI agency, it contributes to the broader metaphysical foundation of the thesis, offering the detail required to fully appreciate what Tarde took over from Leibniz and what he dismissed. In the process, I also remain attentive to the question of precisely what texts by Leibniz were available to Tarde, to ensure that any ascribed concurrence does not depend on texts of which Tarde could not have been aware.

The goal of this chapter is to connect Tarde's theory of imitation to his metaphysics, which requires that I illuminate Tarde's motivation for introducing and modifying Leibniz's monads. To some extent I follow and expand on the interpretation by Tarde-enthusiast Bruno Latour, who argues that Tarde developed his monadological metaphysics as a foundation for his theory of imitation.[1] In other words, monads are hypothetical entities that Tarde introduces to explain movement, which on his interpretation requires changes in belief and desire, which are the objects of this imitation.

1) Continuity

I start with the theme of continuity introduced in Chapter IV (section 6). Along with mind-matter dualism, this theme is an issue *M&S* addresses at the very outset, where Tarde says:

> It is a remarkable fact that all the secondary hypotheses implicit in this great [monadological] hypothesis, at least in its essentials if not in its strictly Leibnizian form, are now being proved

[1] Bruno Latour, "'Prova d'orchestra' or Society as Possession," in *The Social after Gabriel Tarde: Debates and Assessments*, ed. Matei Candea (Routledge, 2016), 307.

> scientifically. The hypothesis implies both the reduction of two entities, matter and mind, to a single one, such that they are merged in the latter, and at the same time a prodigious multiplication of purely mental agents in the world. In other words, it implies both the discontinuity of the elements and the homogeneity of their being.[2]

As this suggests, the solution to the perceived problem arising from the continuity of phenomena and the discontinuity of their elements forms a pillar for Tarde's theory, though it would be an overstatement to say that he dedicated much of his writing to this issue. Aside from presenting the problem on the first page of *M&S*, he addresses it head on only twice more. The first occasion is when he presents his theory as meeting the "fundamental objection made to any atomistic or monadological attempt to resolve the continuity of phenomena into an elementary discontinuity. *What do we place within the ultimate discontinuity if not continuity?* We place therein […] the totality of other beings. At the basis of each thing are all real or possible things."[3] The second time Tarde addresses (dis)continuity, albeit in passing, is in the context of action:

> Matter, as the chemist understands and uses the concept, is a compact dust of distinct atoms, whose distinctions are effaced by their enormous number and by the illusory continuity of their actions. In the living but inanimate, or apparently inanimate, world, can our monad find some less confused phantom, and grasp it? It seems it can. The element, already, intuits the element; the girl who tends a flower loves it with a devotion which no diamond could inspire in her.[4]

From these two passages we see, first, that Tarde agrees with Leibniz that matter as well as action is discontinuous (although he has his own reason for this), and second, that continuity can be established by means of the monadic approach, although Tarde diverges from Leibniz on how exactly that works.

While Leibniz, as we have seen in Chapter III, relies on the monad's perceptions, which contain traces of all previous perceptions, sensible or not, to unite all its perceptual states into

[2] Tarde, *Monadology and Sociology*, 5.
[3] Ibid., 27.
[4] Ibid., 56.

one, Tarde turns to interactive relationships among monads to achieve the same result. I will go into more detail about how that works but I want first to remark that this is not as far from Leibniz as it may seem, given his insistence that monads do not interact. Since for Leibniz a perceptual state is a representation of all other monads and a change from one state to another is reflected in the states of all other monads, relations among monads are key to monadic perception. What Tarde notably disagrees with is Leibniz's denial of interaction among monads. Tarde's theory is all about direct interaction or, as he puts it, mutual possession among monads, and he is far from accepting Leibniz's pre-established harmony as the cause of this interaction. Furthermore, he forcefully rejects insensible sensations, which for Leibniz play a crucial role in establishing the continuity of existence by uniting otherwise distinct perceptions, as we saw in Chapter III. So the difference between their positions is that Leibniz is able to locate the mechanism responsible for a continuation of otherwise distinct monadic states in one monad, whereas Tarde requires monadic interaction for this as well as recourse to what I describe as different levels of reality. More on that in the following.

I now present my analysis of how Tarde addresses the problem of the continuum as presented previously. I start with a clarification of the terms "discontinuity" and "homogeneity." Some of this explanation may not become fully clear until later in the chapter when I clarify Tarde's relational theory of agency; nevertheless, a preliminary introduction seems required. As I understand it, discontinuity refers to the individuated existence of monads as nodes or loci of relational processes. The cohesion of these processes into one entity is achieved by the observing mind; the monad itself is not a unity or substance. But from the perspective of an observer, each monad is a unique configuration of relations, distinguishing it from every other. Homogeneity, on the other hand, refers to the shared underlying relational principle that constitutes all monads.

As Debaise puts it, "It is here that monism takes its full-fledged sense. We can try to define it in the following manner: the dynamic principles are valid for each monadic existence, but the ways in which they are involved inside a particular monad pertain to the singularity of the latter. There is thus a *homogeneity of principles* and a *plurality of ways of existence*."[5] Despite their individuated expression, monads are fundamentally composed of the same "stuff"—relations, interactions, and dynamic processes involving beliefs and desires as described in Chapter II.

When Tarde suggests a merger of matter and mind, I take his thought to be that matter and mind are not fundamentally different things but are instead two modes of relation. We can understand matter as relational interactions at a physical or spatial level, while mind comprises relational interactions at a cognitive or experiential level. Tarde's reference to "purely mental agents" emphasizes that monads, as relational nodes of belief and desire, contain both physical and experiential dimensions—not as separate properties but as interconnected facets of relational being. We thus need to understand "matter is mind, nothing more" not idealistically, as if the external world is a state of mind, but rather that "the whole external universe is composed of souls distinct from my own but fundamentally similar."[6] Since Tarde says that matter and mind merge under the monadic hypothesis, body also clearly plays a role. He holds as a "great truth," and in complete agreement with Leibniz, that "every activity of the soul is linked to the functioning of some bodily apparatus."[7] Since we can perceive the activity of a monad, which is a mental agent, only insofar as it has corporeal expression, it is probably fair to say that the only monads we can know anything about empirically are those acting on or through a body. How exactly Tarde understands the mind-body relationship he never explicitly reveals. This silence is

[5] Debaise, "The Dynamics of Possession," 223.
[6] Tarde, *Monadology and Sociology*, 15.
[7] Ibid., 34.

particularly striking given Tarde's repeated criticisms of Leibniz's pre-established harmony[8]—criticisms that would seem to demand an alternative account of psychophysical coordination. Yet he points vaguely to physical forces and draws analogies to gravity as action at a distance, but what forms the link between the soul and the body remains to be seen. For now, all we need to remember is that the mental aspect of monads is given by the relations among beliefs and desires that I introduced in Chapter II and which is what Tarde seems to mean by the homogeneity of being.

To understand how Tarde uses monads to address the conundrum of continuity I turn to the fundamental objection against monadic and atomistic explanations of continuity as Tarde conceives it. As a reminder, the conundrum revolves around the challenge of reconciling the apparent continuity of the world's phenomena with the idea of reality breaking down into discrete elementary units, whether those are the atoms of atomism or the monads of monadology. The objection concerns how to explain the observed continuity of nature while also holding that nature is ultimately composed of discrete, indivisible entities. Following the Leibnizian spirit in a particular way, Tarde meets this objection by placing continuity within discontinuity, meaning that the discontinuous element, or monad, contains all other beings. Tarde's solution is to show that what appears as an ultimate discontinuity, the monad, is under the monadological hypothesis not a self-contained, isolated "thing" but a node in an extensive network of relations. It "contains" or reflects the totality of other beings through its relationships. This means that the continuity we observe in nature does not come from an unbroken chain of indivisible substances, which would be a conundrum, but from the integration of many interacting relations in one monad. Notably, on this assumption the monad ceases to be a substance, as it is for Leibniz, and

[8] Ibid., 26.

is reinterpreted as a center of activity where many beliefs and desires intersect. Leibniz met the objection differently. For him, each monadic state, each perception, contains a representation of all past as well as future states of the monad and all other monads, and though each of these states is distinct, a continuum nevertheless arises as a collective of all these discrete perceptions. Aside from denying monads a substantial nature, Tarde's account also diverges from Leibniz's in that there are no insensible sensations that could fill the gap between the external stimuli we notice and those that we don't. I address both points in turn. But before I do, a brief word is in order about the scientific vocabulary in which Tarde couches some of these claims.

Tarde's metaphysical claims draw heavily on scientific discourse, but not in the service of strict empiricism. Rather, he appropriates concepts from physics and biology to support a metaphysics of relation. His use of terms like "atom" and "cell" is not meant to reflect settled scientific fact, but to highlight the convergences between contemporary science and his monadological hypothesis. In physics, while atoms were still often described as indivisible particles, this was increasingly questioned by the late 19th century.[9] Tarde himself rejects the indivisibility of atoms. In biology, the neuron doctrine—establishing that the nervous system is composed of discrete cells—was gaining traction in the 1880s and early 1890s through the work of scientists like Santiago Ramón y Cajal and Wilhelm His, with Wilhelm Waldeyer introducing the term in 1891.[10] Given that *M&S* was published in 1893, Tarde may well have been aware of these developments, especially as French neuroscientific discourse was actively engaging these findings.[11] However, he never uses the term neuron specifically. Reflex action, in turn, had

[9] "Atom - Development, Theory, Structure | Britannica," July 24, 2025, https://www.britannica.com/science/atom/Development-of-atomic-theory.
[10] Stanley Finger, *Minds behind the Brain: A History of the Pioneers and Their Discoveries* (Oxford University Press, 2000), chap. 13.
[11] Jean-Gaël Barbara, "The Physiological Construction of the Neurone Concept (1891–1952)," *Comptes Rendus. Biologies* 329, nos. 5–6 (2006): 437–49.

become a central topic in debates on automatism and consciousness, offering fertile ground for Tarde's claim that the mind is dispersed across multiple sites of agency, such as spinal segments or brain cells.[12] His philosophical use of these concepts suggests that far from resisting scientific discourse, Tarde sees it as gesturing toward a relational and psychically suffused conception of matter.

a) Continuity and insensible sensations

We already discussed Tarde's rejection of unfelt sensations in Chapter IV. Briefly, we saw that Tarde believes unfelt sensations are a "manifest impossibility" because to sense essentially means to differentiate, and sensory differentiation is not possible without a self that actually feels.[13] He further argues that sensations are key for the distinction between the internal and external world, so that were we to permit non-perceptible perceptions to be sensations, an internal fact, and insensible, which makes them an external fact, we would conflate the two and deny their distinction. Lastly, we discussed how Tarde differs from Leibniz on the question of how to explain sensations that are composed of imperceivable elements. Unfolding that argument revealed Tarde's repeated commitment to different levels of reality. What Leibniz and others would term unperceived perceptions are for Tarde brain traces, understood as conscious states of brain cells that at times penetrate to the level of personal consciousness, at which point they become felt sensation even though prior to this point they were external to the self. What we didn't do in Chapter IV is to tie this rejection of unfelt sensations to the problem of the continuum, a connection to which I now turn.

[12] "American Literary Realism and Nervous 'Reflexion,'" in *Literary Neurophysiology*, by Randall Knoper (Oxford University Press, 2022), chap. 1.
[13] Tarde, *Monadology and Sociology*, 18. See also *Maine de Biran*, 87.

In Chapter III we saw that Leibniz believes the law of continuity, namely, that nature makes no leaps, supports perceptions of which we are not conscious. Tarde recognizes this when he says:

> It is not that I ignore or disdain the considerations of various kinds on which we rely to imagine unconscious sensations, component and elementary sensations. Leibniz, their father, was led to this hypothesis by the need to reconcile his principle of the continuity of thought in monads with the undeniable fact of the suspension of consciousness during sleep. These non-perceptible perceptions serve to explain our non-deliberate actions: "When I turn to one side rather than another, [he quotes Leibniz as saying], it is very often through a chain of small impressions which I do not notice and which make one movement a little more difficult than another. All our indeliberate actions are the result of a competition of small perceptions." By another path, Maine de Biran ended up with the same error.[14]

Tarde, too, discusses the topic of sensations in the context of the continuum. We looked at his argument against unfelt sensations in Chapter III, but there are two additional arguments I pick up on here as they touch the problem of the continuum. Tarde sets out to rebut the "simplest and most specious of the arguments" that others have brought forward in support of unfelt sensations.[15] He means the argument that it is more probable for the states of consciousness and unconsciousness to lie on a spectrum and differ only by degree rather than being of an entirely different nature. If that is so, then there are some sensations of which we are conscious and others of which we are not conscious.[16] Tarde rejects this contention, arguing that the fact that colours lie on a spectrum does not mean yellow is a kind of blue. He stipulates that "differences of degree presuppose and reveal differences of nature."[17] He makes his point by comparison, claiming there can be variations only if there are themes from which the variances diverge, in the way that dialects presuppose a common language. For sensations this means that there cannot be

[14] Tarde, *Maine de Biran*, 74.
[15] Ibid., 87.
[16] Ibid., 86.
[17] Ibid.

a sensation without a self. I believe what he means is that individual sensations and experiences need a unified consciousness (a self) to give them coherence and meaning. Individual sensations can't exist as independent data points; they must be integrated in an experiencing subject. Sensations that are not felt are therefore truly external to such a subject and can be explained purely mechanically. However, while he proclaims a radical distinction between movement and consciousness, instead of treating these as a dualism in reality he proposes, vaguely, an infinite multiplicity of phenomenal expressions or modes of being. This infinity of differences underlies what we perceive as continuous change.[18] We can see from this that Tarde does not allow for a continuum between conscious and unconscious mental states, but indeed sees a categorical distinction between the two and not one of mere degree. Thus, when he proposed to place a multiplicity of change in the discontinuity between unconscious and conscious states, he means qualitative change, not change in degree.

The continuity of conscious states is, as we have seen, also a problem that Leibniz grapples with, drawing on unconscious states of mind as that which renders distinctly experienced conscious states continuous. Tarde takes a different path to the same conclusion. As we saw in Chapter III, he proposes a model that explains how seemingly disconnected thoughts can arise in consciousness while maintaining a continuous chain of associations at a different level. At times, what Tarde says sounds very close to Leibniz, for example: "we can easily explain why a break in continuity occurs in consciousness, while in the unconscious the chain is complete."[19] But if we read on carefully, we find that Tarde means something different than Leibniz when he refers to the subconscious level. In Tarde's monadology, all phenomena find their origin on a level of reality below them, as we saw in Chapter IV (section on the Priority of Belief over Desire). So,

[18] Ibid., 69.
[19] Ibid., 82.

when he descends to the level below individual consciousness he again finds many little consciousnesses.

We see this in the next argument for insensible perceptions that he addresses, namely that of reflex action. First, Tarde proposes that we abandon the purely mechanical explanation of reflex action and instead recognize that it involves real sensation, not just infinitesimal or unfelt sensation. This leads him to suggest a model in which there are as many "little selves" tiered along the spinal cord as there are segments—forming a "mental federation of which our higher self would only have hegemony."[20] We have, then, a rejection of personal awareness of so-called unfelt sensations, which Leibniz shares, but, and here their views differ, at the same time yet on a different and distinct level many consciousnesses, e.g., segments of the spinal cord or brain cells are conscious in their own right without the higher self, the human, being aware of this.

At this stage, Tarde appears to be attributing consciousness not to monads in the abstract but to concrete biological entities—brain cells—as loci of individuated mental life. On my interpretation, which I develop more fully later, these cells are not conscious by virtue of being self-contained substances or bearers of mental properties. Rather, they function as nodes within a relational structure, and their "consciousness" should be understood in terms of their position within a network of belief and desire. Although I have not yet laid out that account in full, I flag this tension here to clarify that the claim is not that brain cells themselves possess consciousness in the ordinary biological sense, but that they are the empirical sites through which relational dynamics manifest in conscious form.

A footnote reveals how Tarde may have conceived the relation between the two levels, the (subpersonal) selves spread throughout the body, and the individual. He cites M. Léon Dumont

[20] Ibid., 83.

writing in the *Révue philosophique*, 1876: "There may be in the cerebral mass several local and partial hyperemia which are not in continuity with each other and consequently form as many distinct consciousnesses, each of which is unconscious to the others and of which only one, however, can belong to the ME." Since this is exactly Tarde's argument, the passage shows that his idea was gaining ground among others. Assuming agreement with Dumont, we can understand Tarde to be saying that one of the areas of increased brain activity (this is what I take "hyperemia" to mean) belongs to the personal self and that other areas are distinct consciousnesses whose activity does not reach the level of personal consciousness.

So the first key difference between Leibniz and Tarde is that the latter, while imposing a radical distinction between movement and consciousness, i.e., between the physical and the mental world, always also reinserts consciousness on every level. This allows Tarde to explain continuity in perceptions, not by leaning on unconscious perceptions as Leibniz did, but by drawing on the conscious states of brain cells as the link between distinct conscious perceptions of the self. The subtle difference between these positions is that Tarde stipulates a different reality at the level of conscious brain cells, but one that can spill over, so to speak, into the reality of the conscious self. Leibniz, on the other hand, has consciousness arise only when an organism is sufficiently developed, hence he would deny that brain cells are conscious, but it was he who pioneered the idea that there are mental states of which the self is not aware. Tarde follows Leibniz in this, of course, though he insists that these unconscious states are not sensations of which the self is unaware. They are not mental states of the self at all; they are conscious states of brain cells (with the caveat I mentioned above).

b) Continuity and simple substances

I said earlier that Tarde's monads are not simple substances. This is relevant because Leibniz's insistence on the simplicity of monads creates a tension in his account of continuity, while Tarde's more complex conception of monads better integrates with the concept of the continuum. Tarde doesn't explicitly say that monads are not simple substances, and for a reason: He does not think of the monad as a substance at all (he uses the term substance exclusively to refer to chemical substances or atoms, which, by the way, he insists are all dissimilar and have evolved from a primitive substance itself essentially heterogeneous), but his philosophical framework moves beyond substance ontology altogether. In fact, Tarde rejects the entire concept of substance, describing both "substance" and "phenomenon" as "empty terms" that merely double the concept of Being.[21] He critiques in this way the theory that substance is being that underlies appearances, and phenomenon is being as it appears, hence the doubling. Instead, Tarde proposes that monads are not substances that have properties; they are defined by their properties, relations, and activities. A monad is what it has and what it does—its beliefs, desires, and influences—not some underlying substance beneath its appearances. One might say that he expands to the level of the monads Leibniz's diversification of the physical world into ever smaller parts, with these parts being not physical elements, of course, but different beliefs and desires.

Once again this is not as radical a break with Leibniz as it may seem. After all, since the perceptions of Leibniz's monads are infinitely divided, and monads *are* their states of perceptions and the drive to change from one to the next, for Tarde to stipulate that monads are not simple is actually not that far from what Leibniz held, particularly since Tarde appears to

[21] Tarde, *Monadology and Sociology*, 49.

agree with Leibniz that monads are without (physical) parts. Given the tradition in which Leibniz was writing, he might object to this idea, but from our distance Tarde can be seen as developing the theory of the monad along a trajectory firmly rooted in Leibniz's theory. Free from constraints that the ancient notion of substance would impose on his monads, Tarde reinterprets them relationally. That means that while we perceive things in the world as distinct, in reality they are not, because their elements are what they are as a result of their environment, which summarizes current and past influences, although we seldom appreciate these relations exhaustively.

When we look at other persons they appear to be distinct from us, though they are, at least to a significant degree, the sum of innumerable influences, starting with their parents, teachers, friends, the authors they read, and everybody else who makes up their cultural background, including all generations of ancestors and historic leaders. We do not have the capacity to compile an exhaustive list of all the formative influences, though in theory this would be possible if the number of influences, while vast, were finite. However, if we consider every causal factor extending indefinitely into the past or across space, one could argue that the influences are effectively infinite, making a complete account fundamentally impossible.

While we know that we are to a great extent the sum of our environment and that this environment includes to varying degrees every other human being, we do not keep this at the forefront of our minds when we encounter another person, focusing instead on differences, which leads us to the mistaken conclusion that persons we encounter are distinct from us. The insight that a monad is the node of relational activity also applies to non-human animals and the seemingly inanimate entities of nature. This, then, is what I interpret Tarde to mean when he says he places continuity within discontinuity. Where Leibniz used God's creation of the best possible

world to explain why each monad exists in just the way that it does, forming a part of the best possible world and placing all of them into relation with each other despite a lack of interaction, Tarde weaves a web of ultimate interconnection among the monads and explains their existence and characteristics as the outcome of all these interactions.

As we have seen, Tarde agrees with Leibniz that actions are continuous in appearance only. He says that distinctions among atoms are difficult to grasp because atoms are so many and seem to move as one. He describes as a phantom the illusory continuity of a material object as opposed to a mere aggregate of atoms. The best idea is to interpret material objects as monads, though the clarity we gain does not derive from knowledge of the composition of a piece of matter or the true nature of its movement. Instead, the monadic interpretation allows us to understand a material body in relation to other things or to us, which to Tarde is much closer to the truth than pondering atomic composition or activity. When he says that "the element, already, intuits the element," he points once more to the interconnection of all things, and in a particular, specifically mental, way. The word "intuits" means, I take it, to perceive or apprehend something directly without the need for reasoning or ancillary knowledge. This awareness comes from the homogeneity of being all things share, their relational essence. One could never know anything about anything unless the subject of knowledge is fundamentally similar to one's own nature.[22]

So the monadic interpretation of material objects shows that they are fundamentally similar to us, and the way we relate to a material object depends on the effort we put into the relationship. A girl tending to a flower, watering it, providing nutrients, and invested in its thriving develops a knowledge so intimate and emotional that a relation to a seemingly inanimate object like a diamond cannot match, even though it may be conventionally more precious. We obtain none of

[22] Ibid., 15.

these insights from viewing material objects as composed of atoms and having whatever other purely physical characteristics atomic composition may imply.

To summarize what these two thinkers say about continuity, Tarde seems to care much less about it than Leibniz does, yet he does address the fundamental objection that it is not possible to reconcile the experience of continuity with the distinctness of the elements composing matter. He does so by claiming that a seemingly distinct element is really connected to all other elements and that the nature of the element can be apprehended only by considering its environment, which is no less than the entire universe past and present, all of which is connected to and influences each element. This interconnection is a mental connection by means of which relations are weaker or stronger depending on the degree of interaction and attention given to the relations. The continuity of perceptions results not from something filling in the gaps between conscious perceptions with unconscious ones, but rather with infinitely many physical states of the brain cells of which the individual is not aware but which are conscious in their own right. The Leibnizian features that shine through on this account of continuity are a spiritualization of matter, its actual infinite division, the possibility of unconscious mental states, and the interconnection of all monads, although this last point is heavily modified, as Tarde sets aside pre-established harmony and Leibniz's idea that the compossible monads comprise the best possible world.

Nothing of what I claim Tarde takes over from Leibniz was inaccessible to him at his time of writing. The spiritualization of matter, its actual infinite division, and the interconnection of all monads find clear expression in the *Monadology.* Perhaps most importantly, Leibniz's insistence on insensible sensations and their role in resolving the problem that continuity seemed to raise were well known to Tarde from the *New Essays on Human Understanding*. This becomes

clearest in Tarde's lengthy rebuttal of Leibniz's account of insensible sensations in *Maine de Biran*. If we were unsure up until now whether Tarde had actually read the *New Essays on Human Understanding*, it seems much more likely in light of his familiarity with Leibniz's position on insensible sensations.

2) Mind-Matter dualism

Moving on to Tarde's rejection of mind-matter dualism, we saw in Chapter III that Tarde agrees with Leibniz's rejection of Descartes's position that matter is merely spatial extension. The main point of Leibniz's criticism is his argument that motion and resistance to motion cannot be explained if matter were mere extension, but I disregarded this for the most part, given that Tarde does not seem to share this motivation for rejecting mind-matter dualism. But we also saw that a mechanical explanation of matter does not account for certain phenomena, such as the harmony of biological life, which seems instead to necessitate a teleologically motivated monad. In this section we turn to Tarde's own argument against mind-matter dualism and explore its differences and similarities with that of Leibniz. The principal challenge lies in understanding what Tarde means when he talks about the spiritualization of matter and specifically what he takes consciousness to be, what kinds of entities he ascribes it to, and what this means for teleology, or purpose in nature.

I start with an oft-cited passage that is usually considered when comparing Tarde and Durkheim on their different approaches to what constitutes a society. I myself cited it previously in just that context. But Tarde writes this passage in the context of his argument for the spiritual nature of matter:

> Now, however intimate, profound, and harmonious a given social group may be, we will never see springing forth *ex abrupto* from among its members, to their surprise, a *collective ego* which is real and not only metaphorical, a marvellous outcome of which these individuals would be the conditions. Doubtless there is always one member who

> represents and personifies the whole group, or else a small number of them (like the ministers of a State) who, each in a different respect, individualize it no less entirely in themselves. But this leader or leaders are always also members of the group, born from their father and mother and not collectively from their subjects or their subordinates.[23]

Here we see Tarde argue that it is impossible for consciousness to suddenly spring into existence once certain parts of matter are arranged in a special way. Consciousness would not be possible unless the parts that compose that matter were conscious all along. Tarde offers an analogy strongly reminiscent of Leibniz's mill argument: a machine is not able to produce as output anything that is not a modification of the input it receives.[24] It can only work with what is fed into it.[25] Consequently, Tarde argues, it is not possible for a new being, an ego, to be created from some special arrangement of unconscious matter. Instead, "matter is mind, nothing more," as we have seen.[26] In other words, if life and consciousness exist at any level they must do so at every level, down to the infinitely small. I addressed this in the earlier section on Continuity. Rather than say that our spinal cord and brain cells are conscious in a way that contributes to the individual's consciousness, Tarde's idea is that they are conscious in their own right, though perhaps quite differently from our personal consciousness; we will never know.

I also hinted at the fact that the consciousness of a particular area of the brain is likely responsible for personal consciousness, though I postpone a full discussion of that point until we get to this chapter's section on Dominant Monads and Consciousness. Tarde's argument that consciousness cannot arise spontaneously from some clever arrangement of unconscious matter seems plausible to me and makes the conclusion that matter must be conscious all the way down comprehensible if not exactly intuitive. As for his claim that mind is matter, nothing more, we

[23] Ibid., 36.
[24] Leibniz, *Monadology*, para. 17.
[25] Tarde, *Monadology and Sociology*, 20.
[26] Ibid., 15.

know that Tarde interprets physical attributes relationally. Comparing this to Leibniz's position, we can see that he also posits analogues to appetition and perception all the way down, but has consciousness arise only when an organism is sufficiently developed.

Tarde does not provide sufficient detail for me to engage in a proper comparison of the two positions on this point, so I shall merely remark that at times he limits his claim to the proposition that intelligence likely exists on all levels of life rather than being restricted to consciousness, even though he never explains what he means by consciousness, how it differs from intelligence, or whether there is a difference between the consciousness of cells and that of humans. In a passage from *Maine de Biran*, we find possible evidence for Tarde holding that there are different kinds of consciousness.[27] In this passage, he questions the traditional dualistic framework that posits movement (physical processes) and consciousness (mental phenomena) as radically distinct entities. He criticizes the attempt to overcome this distinction by invoking a "third reality" (perhaps akin to a metaphysical substrate or an ineffable cause) as their common origin, arguing that this approach simply adds another layer of obscurity rather than clarifying the relationship. Instead, he thinks it is less perplexing to allow that reality discloses itself through "an infinite multiplicity of revelations," each different from the rest. This suggests that what we typically perceive as movement or consciousness may be just two among countless forms of existence or ways in which the ineffable (reality itself) is manifest.

The critique of dualism and Tarde's preference for multiplicity opens the door to a plurality of forms of consciousness. If instead of being one singular, universal phenomenon, consciousness is but one of many ways reality expresses itself, then it is entirely possible that different kinds or modes of consciousness may exist, such as personal human consciousness, animal

[27] Tarde, *Maine de Biran*, 69.

consciousness, the consciousness of brain cells, and so on. Hence, we might wonder whether Tarde and Leibniz actually disagree when Leibniz denies consciousness on every level, by proposing that Tarde would agree that a particular kind of consciousness only exists once an organism is sufficiently developed.

What I have said to this point already includes an argument for the spiritualization of matter, namely Tarde's theory that we could not know anything about matter if it wasn't fundamentally similar to our own nature, which indisputably has a mental aspect. However, we have to make this argument a bit more complex. He makes the point that in order to know something about matter we need to stand in some relation to it, and that such a relation can only be entered into if there is similarity on both sides. This does not mean that our sense organs must be able to perceive matter in order to know it, since he speaks about being able to affirm the existence of "*the being in itself of a stone,*" which surely isn't available to sense perception.[28] His point is rather that in order to affirm the existence of a thing external to us it must be fundamentally similar to us, otherwise it would remain utterly unknowable. To say we know nothing of a stone's being in itself and yet to affirm its existence is, Tarde thinks, simply illogical.[29] The only way out is to postulate that the being in itself of a stone or anything else is fundamentally similar to our own being, hence it too must have a spiritual, conscious, or mental component, which I interpret to mean its essence is also fundamentally relational.

This point of view has radical consequences, requiring not only the reinterpretation of matter as mind but also the reinterpretation of space and time as well as movement. Tarde hypothesises that space and time mediate the movements of bodies, much as belief and desire help us make

[28] Tarde, *Monadology and Sociology*, 15.
[29] Ibid.

sense of sensations.[30] Here is what I believe he means: Beliefs exist on a scale from conviction to a slight tendency to believe that something is true, e.g., that a sensation is a representation of something actual in the world and present to my sense organs, or that an idea is sound and reflects a correct judgment of the facts. This makes belief a fundamental mental framework within which individuals come to understand sensory information and ideas. In this way belief is similar to space and time, which provide the framework within which physical objects exist and interact.

Desire, on the other hand, which exists on a scale from deep passion to slight preference, plays an important role in making sense of sensations. For example, while sense organs provide an enormous amount of data, which data points we pay attention to is regulated by our desires. According to an ancient saying, "when a pickpocket meets a saint, he only sees his pockets." As this cleverly conveys, desire, aside from driving selective attention, also shapes how we interpret sensory input. We welcome rain after a drought and curse it when the land is flooded. As a mental state associated with wanting or seeking something, desire has an important temporal dimension. It is a motivational force that prompts us to take action to satisfy our needs or achieve our goals over time. It is this temporal component that leads Tarde to compare desire to time, which he says is the dimension that organizes events in the external world just as desire does for the internal world of sensations.

He even plays with the idea that space and time, rather than being analogous to beliefs and desires, are in fact identical to them: "It remains to be examined whether this analogy does not conceal an identity, and whether, rather than being simply forms of our sensory experience, as their most profound analyst [Kant] believed, space and time are not perhaps primitive concepts

[30] Ibid., 17.

or continuous and original quasi-sensations by which, thanks to our two faculties of belief and desire, which are the common source of all judgements and hence of all concepts, the degrees and modes of belief and of desire of psychic agents other than ourselves are translated to us."[31] In the spirit of *M&S*, which commences with the epigraph "*Hypotheses fingo*," Tarde does not argue for or commit to this view but merely delights in where it takes him, bravely advancing this bold conclusion.

Let me try to explain. Kant's position is that space and time are a priori forms of intuition. They are the necessary structures through which we experience phenomena but are not properties of things-in-themselves. They are, as he explains in the *Transcendental Doctrine of Elements*, the conditions imposed by our cognitive architecture on the possibility of experience.[32] Tarde, by contrast, makes a more radical ontological claim. He suggests that space and time are not merely formal conditions of experience, but are *identical with* belief and desire at a fundamental level. On this reading, space *is* belief expressed collectively across monads; time *is* desire, manifesting as the forward momentum of becoming. These are not mental constructs that generate or precede space and time—rather, they *are* space and time, reinterpreted as universal mental phenomena.

That makes even space and time informed by belief and desire, which underlie all our thought processes, judgments, and concepts. Tarde proposes that we can understand the movement of bodies because movements are actually "judgments or objectives formulated by the monads."[33] In other words, external bodies are psychic agents (by virtue of the fact that a monad acts through them) whose mental activities we can experience because they are beliefs and desires fundamentally similar to our own and conveyed to us through the medium of space and time,

[31] Ibid.
[32] Immanuel Kant, *Critique of Pure Reason*, ed. and trans. Paul Guyer and Allen W. Wood (Cambridge University Press, 1998), A20-B34, Cambridge Core.
[33] Tarde, *Monadology and Sociology*, 17.

which are concepts that form part of our cognitive framework and which as concepts trace back to the common source of all concepts, namely belief and desire. So, it is not only that matter is mind, but also that activity is mental, a reflection or manifestation of the intentions, decisions (judgments), and goals (objectives) of psychic agents (monads) that underlie these activities.

Tarde hastens to add that he is not saying all movements are conscious, which would imply that there are no unconscious states at all. He concedes that sleep is one such state and that his theory does not require him to insist on all movements being consciously performed. He points out that beliefs and desires can also be unconscious.[34] Indeed, he pushes the point further to suggest that if beliefs and desires need not always be felt, it could be that "*non-sensory qualifying signs* […], just like our sensations, may serve as the point of application for the psychic forces *par excellence*, namely the static force called belief and the dynamic force called desire."[35] I understand him to say that it is possible for belief and desire to convey insight into *unknowable* phenomena that, while different from sensations, do not differ from them to a greater extent than one sensation, for example, warmth, differs from another, like a sound. His example of an unknowable phenomenon is matter. He points out that we describe matter as a "coherent and solid substance, satisfied and at rest," which to him sounds very much like a strongly held belief, which can be described in the same terms.[36] His point seems to be that in its solid state, matter exhibits properties of cohesion and stability, which give the impression of being content or satisfied in its current state. This satisfaction arises from the fact that in its stable form matter tends to maintain its structure and composition unless acted upon by an external force. Beliefs also tend not to change unless they encounter an external influence. Since

[34] Ibid., 18.
[35] Ibid., 19.
[36] Ibid.

Tarde likens physical force to effort, as we discussed in the previous chapter, he consequently describes belief as a static force and desire as a dynamic one.[37] We see, then, that deepening the understanding of belief and desire leads to an enhanced understanding of external realities that are otherwise inaccessible to us, which even leads him to suggest that materialism and idealism might both be legitimate theses. Put differently, Tarde suggests that the position that external realities are fundamentally mental and depend on our consciousness, and the position that external reality exists independently of consciousness might both have their merits and perhaps there is room for a synthesis of the two.

Before I end this discussion of mind-matter dualism, I must clarify that Tarde by no means argues that everything real or existant reduces to one thing, mind, or to two, belief and desire. Following Leibniz, he clearly favours a multiplicity of differences.[38] His point is rather that these two are always present, allowing us access to the nature of things outside us. At the same time, he critiques Leibniz for not going far enough when he claims that each monad differs from every other. While Leibniz allows for differences of degree in kinds of monads—for instance, between rational, sentient, and bare monads—Tarde suggests that even these categories remain variations on a common structure: monads as selves or egos. Tarde wants to go further, proposing instead that we "admit that many of them, judging them by the nature of their external manifestations, have an *inside* of their own, radically other than our own *inside*, which we call the *Me*."[39] This indicates that we need to introduce a nuance to Tarde's position that we have thus far neglected.

While he seems to claim that all matter is conscious—that is, constituted by the interplay of beliefs and desires—Tarde nevertheless sees a radical difference between the internal experience

[37] Ibid.
[38] Tarde, *Maine de Biran*, 66.
[39] Ibid., 67.

of monads, more specifically between humans or organic matter, and that of inorganic matter, a difference so radical that it may not be warranted to describe all of this with the same single term "consciousness." Supporting the point that this distinction applies in particular to organic and inorganic matter, we find him saying: "Whatever we do to remove it, the barrier between the inorganic world and the organic world always recovers."[40] In other words, Tarde's rejection of mind-matter dualism does not mean that he ascribes to a monism, despite his claim that "matter is mind, nothing more."

Sensations are an example of something that inorganic matter does not seem to have. But Tarde sees radical differences everywhere–between different sensations, between the organic and the inorganic, between consciousness and movement, and between belief and desire.[41] He even goes so far as to say that there are "certainly [*assurément*]" superior beings who might well consider our living as death and our intelligence as unintelligent because it is so radically different from theirs.[42]

I note that this position suggests an inconsistency with what we have seen above, namely, the similarity Tarde stipulates in *M&S* between ourselves and a stone, which is responsible for our being able to know anything about the stone's being. I do not see how this can be reconciled with his assertion in *Maine de Biran* of these radical inner differences. When the claimed commonality between us and stones relies on attributing belief and desire to stones, that may seem like fairly thin ground for a claim to knowledge about the being of a stone, given how different the beliefs and desires must be. But it is still more than what the editor of *Maine de Biran* proposes as constituting the shared essence of all things, which is bare difference. She says

[40] Ibid., 89–90.
[41] Ibid., 89.
[42] Ibid., 89–90.

that Tarde diverges from Leibniz, as the latter generalized the self in his monadology, giving all things a kind of soul, whereas Tarde generalizes difference itself.[43] In my opinion this interpretation is off the mark. Tarde seems clearly to generalize belief and desire, meaning he endows everything that exists with belief and desire. What is more, difference alone could not account for the relational approach of his monadology, which we explore more fully in the following section. To be clear, I think that Tarde indeed rightly places difference at the foundation of existence. I suggest that Tarde treats belief and desire as an equally fundamental commonality binding all things. Rather than challenging his emphasis on difference, I suggest that he complements it by recognizing belief and desire as universal in *M&S.*

A possible solution to this tension is that Tarde may have changed his mind to some extent in the four years since he wrote *Maine de Biran.* There are three further passages in *M&S* that suggest a move away from the radical difference between organic and inorganic matter he advocated in *Maine de Biran*. First: "however far we penetrate into the microscopic and even ultra-microscopic depths of the infinitely small, we will always discover living seeds and complete organisms, in which observation or induction will lead us to recognize the characteristics of animality as much as of vegetation, since the two kingdoms are indistinguishable *in minimis*."[44] From which, he says, "it follows first of all that the chasm between the nature of inorganic beings and the nature of living things is not unbridgeable."[45] The bridge Tarde speaks of is that both organic and inorganic beings are societies. Finally, Tarde goes on to observe, without citing any reference for this claim, that "[i]t should however be noted at this point that science also increasingly assimilates organisms to mechanisms, and that it

[43] Ibid., 24–25.
[44] Tarde, *Monadology and Sociology*, 23.
[45] Ibid., 29.

lowers the barriers previously erected between the living and the inorganic worlds."[46] While it is questionable to claim that science first began to suggest that organisms are mechanisms within the few years between *Maine de Biran* and *M&S*, it is evident that Tarde changed his position on the radical distinction between inorganic and organic beings, gesturing towards scientific developments as a way of reinforcing his metaphysical trajectory. The broader scientific context of the late 19th century, for example Haeckel's work which Tarde explicitly references and of which he may have become aware after writing *Maine de Biran*, thus serves as a corroborating backdrop for his challenge of the strict ontological separation between the living and the inorganic, a distinction he now presents as less rigid than before. This softening of the boundary is philosophically intriguing but not entirely convincing. While Tarde gestures at a shared structure of belief and desire across all matter, he never fully explains how this can coexist with the radical differences in internal experience on which he insists simultaneously. As a result, the metaphysical continuity he proposes remains only suggestive.

I now turn to an aspect of Tarde's monadology that is radically different from Leibniz's in its relational approach to monads. This section lends further support to my claim that there is more commonality between inorganic and organic beings than the fact that they are all different.

3) To have, not to be

The imitative relation Tarde finds among monads and by means of which they try to bring each other to share their respective beliefs and desires is a relationship of possession, though not understood as a relation between an individual subject and a material object, as in a person possessing the pen in her hand. Although Tarde's uses the term "possession" (*possession*) by borrowing from more stable ontological assumptions, possession must also not be understood as

[46] Ibid.

requiring a stable subject, but rather as a momentary structure of influence. The very idea of a stable "thing" that possesses is secondary to the relation itself. The "possessing" moment is a ripple in the network of imitation. It is the relation itself that does the metaphysical work, not an enduring entity behind it. Tarde is attempting something genuinely novel here—replacing ontological primacy with relational priority—but his terminology does not always keep pace with his metaphysical ambitions. The language of "possession" reintroduces the very subject–object assumptions he aims to undo, making it difficult to consistently uphold his own relational model—a difficulty I share, as I have to rely on Tarde's own formulations.

For Tarde, a possessive relation is a relational and dynamic form of influence. In this context, to possess is to affect and be affected, to bring another monad into alignment with one's own beliefs and desires, whether unilaterally or reciprocally. The relation can vary in both intensity and duration depending on the distance between the monads in the network they form and the similarity of the beliefs and desires that intersect at the specific point Tarde identifies as the monad. It is also a relation that is absolutely pervasive. No entity exists outside of these possessive relations. In fact, as we will see, possessive relations are for Tarde metaphysically prior to any proprietor (that is, subject) altogether.

Tarde holds that every proprietor, that is, every entity, has for its property every other proprietor. As an example, Tarde apparently draws inspiration from Newtonian physics, where gravitational forces and thus weight is relative to other masses and their distances, thus claiming that a body's weight depends on that of all others as well as their proximity.[47] The biological properties of a cell include the other cells of an organism and to a greater degree those of the same organ. These examples illustrate that an entity's properties arise not from some internal

[47] Ibid., 53.

essence, but from its relational entanglement with others, supporting Tarde's view that possession precedes and constitutes the possessor.

In *Laws of Imitation*, Tarde maintains the same for human individuals, whose properties are other individuals, especially those in spatial or temporal proximity. Individuals do not hold a single belief or desire, speak a word, or make a gesture that is not copied from the example of another, each reciprocally possessing one another. This claim reflects the vantage point of social observation, where individuals appear as stable agents shaped by their milieu. Bringing this into the context of *M&S*, the apparent agency of individuals dissolves into a play of relations. Individuals are not prior to the beliefs and desires they express; they are constituted by the converging rays of imitation that momentarily intersect at a node. From this perspective, possession remains the foundational relation. As discussed in Chapter II, even what looks at the social level as an invention by a celebrated individual can be understood, from the metaphysical perspective, as a rare but intelligible result of intersecting belief-desire flows—where imitation, in recombining prior influences, gives rise to a novel tendency without requiring a stable self behind it.

Consequently, aside from a natural aspect that Tarde explicitly concedes exists alongside the social aspect of human individuals, and which I explain below, individuals *are* their social relations. Insofar as their natural aspect is concerned, individuals such as human beings are, like any other organism, defined by the possessive relations they enjoy to their environment. Bruno Latour, first and foremost, has since further worked to eliminate the distinction between nature and society, as we will see in Chapter VI.

Possessive relations are also what make a mere aggregate of people into a human society. For example, picture a cruise ship with one passenger from each country in the world. This would be

an aggregate of people, not a society. But if they were stranded on an island, lived together for a few decades, and started imitating each other in the way they speak, behave, raise their children, and so on, they would become a society. It is by the reciprocal possession of each by each that Tarde defines society.[48]

Latour beautifully explains how Tarde's use of "possession" must be understood by evoking the play of an orchestra as an example of a society apparently composed of distinct parts, namely, the musicians and the conductor. "If everyone took care of their own score and only that, or limited themselves to their role and nothing else, *there would be no more society than there would be an orchestra*."[49] Everyone possesses everyone else in the sense that everyone knows when everyone else is supposed to be playing and how they are supposed to sound. They know when it's properly *their* turn but at all other times they still need to be listening attentively not to miss their turn. They also know when another musician played poorly because they know what the music is supposed to sound like. They may not be able to do it right themselves (if it is not their instrument) but they are nevertheless aware that something is wrong.

Something comparable holds for all forms of society. Everything is everyone's business, though in varying degrees, of course. It is not that every constitutive part strictly plays its own role utterly unaffected or inattentive to the other parts, but rather that everyone is at least peripherally aware at all times of what others are doing, holding each other accountable and intervening when appropriate. We need to be careful to not fall into the distinction Durkheim suggested, namely that there are selfish individuals on the one hand and a greater whole on the other, for the sake of which the individuals surrender their personal interests. For Tarde there is no greater good beyond the reciprocal possession of all by all. It is only in the midst of the

[48] Ibid., 51.
[49] Latour, "Prova d'orchestra," 301.

orchestra playing in unison that violinists can do what they are there to do; without the others, none of the musicians can play their part as intended. Those parts simply do not exist in isolation, being defined by all the other parts. Furthermore, if the musicians decided to quit, the orchestra would dissolve even though its constitutive parts remain perfectly intact, not as orchestra members of course, but perhaps as solo artists and certainly as human beings. We see, therefore, that the constitutive parts of a whole compose an institution with no more than a part or aspect of themselves, which is vastly *less* complex than all the constitutive parts, in contrast to something sociologists often suggest, namely, that an institution is more complex than any one of its composing elements.[50]

With this characterization of possessive relations, Tarde places "possession" where philosophy has traditionally situated "being."[51] It is difficult to see how Tarde can grant possession, a relation, priority over the being of relation's terms. When we hear that we tend immediately to ask, "*Who* is possessing *what*?", where the very form of the question presupposes two entities existing in advance of their relation. Tarde agrees that possession implies being, the possessor and the possessed, but he maintains that possession, or "having," is not exhausted by "being," that something more is involved, namely a relation, and that this relation is a prerequisite for the beings, not the other way around.[52] He suggests that "being" is unsuitable as the foundation for anything and that beings are instead the result of relations, which take priority in his metaphysics.

Tarde explains that when philosophers start from "to be," they have not been able to deduce the existence of anything except the subject that thinks ("*cogito ergo sum*"). But when we

[50] Tarde, *Monadology and Sociology*, 37.
[51] Ibid., 52.
[52] Ibid.

replace “to be” with “to have,” we arrive at a richer basis from which to inquire into what reality is, positing both possessor and possessed—two distinguishable terms—instead of just a solitary being. Furthermore, this framework implies not only two relata, but also a relation between them. In other words, the concept of “having” is not exhausted by the being of the possessor and the possessed; their connection is constitutive. “Being,” on the other hand, is for Tarde reducible to “having,” since “being” can only be conceived of as the possession of a property by something, as in Tarde’s example “my arm is hot,” where heat is a property of the arm. Even statements of identity, such as “a Frenchman is a European,” though they grammatically refer to one subject, are relational, according to Tarde, in that they position the subject within a broader genus—Frenchman as a subset of European—and thus imply a relation between conceptual kinds. In both cases, “to be” ultimately expresses a form of possession or inclusion. While being is thus exhausted by having, having is not exhausted by being. An ontology grounded in possession therefore offers a more generative framework than one based on being, while conceding nothing. I elaborate on these benefits shortly.

One may take issue with Tarde’s argument that being is reducible to having. We might recognize that some relations, like equality, do not easily fit this framework. Equality, for instance, is a relation shared by two or more entities rather than something that one entity can possess independently. For example, saying “a Frenchman is a European” implies shared membership in the category of European, which involves a reciprocal relation of belonging, not just a property possessed by one entity. Hence, in this instance, being is already a relational concept. While it is true that being can encompasses relational aspects, Tarde’s point is that having makes these relations central and explicit. In contrast, being often seems to imply an isolated or self-contained entity, even when relations are acknowledged. By giving priority to

possession, having, Tarde thus emphasizes that relations are not just additional properties but the very foundation of reality.

By basing metaphysics on having rather than being, Tarde contends that we prevent the problem encountered when commencing the inquiry into existence with *cogito ergo sum* by instead starting with relations. Imitation, as an inter-individual or as he says "inter-cerebral" relation, describes a connection between two individuals that provides certainty of their own existence to the individuals thus related. In Tarde's words:

> [I[t is rather in an inter-cerebral psychology, which studies the rise of conscious relations between two or more individuals, that we must seek [the fundamental fact of sociology]. … This relation between a subject and an object which is itself a subject—and not a perception in no way resembling the thing perceived—will not allow the idealistic sceptic to call in question the reality of the latter; on the contrary, it means that we experience the sensation of a sentient thing, the volition of a conating thing, and the belief in a believing thing,—the perception, in short, of a personality in which the perceiving personality is reflected, and which the latter cannot deny without denying itself. This consciousness of a consciousness is the inconcussum quid which Descartes sought, and which the individual Self could not give him.[53]

When two or more individuals enter into a relation, they become conscious of their likeness, which I will refer to as their relational essence. They can become conscious of each other's existence only because of this likeness, as I explained above. As human individuals, we cannot step into a direct relation with other entities that differ too widely from us. For example, we are not able directly to interact with individual chemical atoms. Since their existence can only be deduced from their behaviour, i.e., the changes they effect, we can't be as certain of the existence of individual atoms as we can of the existence of a fellow human being or another animal, which is another reason why possession is superior to being as a foundation for metaphysics.

In Chapter IV, I cited a passage from Tarde that speaks to the role possession plays in a monad's agency. We now have the background necessary properly to understand that thought,

[53] Tarde, *Social Laws*, 21.

which I repeat for ease of reference. “The elements are, certainly, agents as much as they are proprietors; but they can be proprietors without being agents, and they cannot be agents without being proprietors. Moreover, their action can be revealed to us only as a change in the nature of their possession.”[54] I take this to mean that standing to some other in a possessive relation is not sufficient for agency, even though there is no agency without a possessive relation to one or more other monads. For example, a monad may be under the influence of another and thus passive rather than active. It would still be in a relationship of mutual possession with the other, since such a relation is always by necessity two-sided, but it could not be considered an agent.

This raises the question of what more is required for agency and whether a monad might be incapable of agency. The passage seems to imply that some elements are proprietors only, not agents, although this is not absolutely clear. An obstacle to the idea that there can be elements that are not also agents is that Tarde explicitly locates agency at the infinitely small level. He says, “these tiny beings which we call infinitesimal will be the real agents, and these tiny variations which we call infinitesimal will be the real actions,”[55] and that “the spontaneous generation of intelligence is a hypothesis even less acceptable, if such a thing be possible, than the spontaneous generation of life.”[56] Here he insinuates that intelligence as well as life are characteristics of the infinitely small first and then flow through to the “higher” entities they compose. Hence, it is unclear how, if all matter is spiritualized and thus alive, some entities have agency while others do not. The fact that all monads are proprietors is clear from Tarde’s ludic paraphrase of *cogito ergo sum*: “*I desire, I believe, therefore I have.*” It seems clear that since all monads have beliefs and desires, they must all possess something. Tarde further says: “Since

[54] Tarde, *Monadology and Sociology*, 54.
[55] Ibid.
[56] Ibid., 23.

being is having (*avoir*), it follows that everything must be avid (*avide*). Now, if there is anything so obvious as to strike everyone's eye, it is surely this avidity, the immense ambition which from end to end of the world, from the vibrating atom or the prolific animalcule to the conquering king, fills and moves every being. Every possibility tends towards its realization, every reality tends towards its universalization."[57] This seems to confirm that everything is an agent striving to act, albeit not always successfully.

Incidentally, this account is very similar to Leibniz's position, although the latter clearly rejects the assumption that everything *knowingly and consciously* strives towards its realization, whereas Tarde is less clear about that. As we have seen, he allows for unconscious beliefs and desires but explicitly only in a human context, for example during sleep or those implicit in our pleasures and pains. He does not explicitly say what the state of (un)consciousness is for lower animals, plants, and so on, although he does preface his claim that there are unconscious beliefs and desires by saying that this hypothesis is not anthropomorphic, which we can read as conceding that animals, plants, and inorganic matter also consciously strive towards the realization of their desires. In addition, our discussion of brain cells and the spinal cord suggests that Tarde locates consciousness on that level too.

To return to the question of the monad's role in agency and whether there are monads that are only proprietors but not agents, I propose an interpretation of agency that takes seriously the notion that relation enjoys priority over being. This interpretation resolves the tension that would otherwise arise between Tarde's view of monads as agents and my interpretation of monads as mere hypothetical entities that explain movement. The issue here is a metaphysical challenge regarding the relationship between substance and agency. How can there be agents without

[57] Ibid., 60.

enduring substances to serve as their foundation? When Tarde claims that the infinitely small are the real agents he appears to diverge from Leibniz in a crucial way. While Leibniz insists that agency requires a persistent substance—something that remains identical while acting—Tarde seems to want to retain agency while rejecting substantial persistence. I suggest that Tarde has in mind a relational interpretation of agency, which his concept of possession partially obscures, since he seems always to require a relater and a related. But on a close reading that keeps at the forefront Tarde's insistence that relations enjoy metaphysical priority over being, agency appears not as something a monad possesses as an intrinsic capability, being instead a result of the interplay of relations. A monad is a locus where diverse relational influences converge and are transformed into patterns that reflect the ongoing negotiations among belief and desire. The activity we attribute to the monad is not an action originating within it but rather the outcome of the dynamic relational field in which it participates. The monad does not "shape" relations as if it were external to them. Rather, its identity and any apparent agency are constituted entirely by the ongoing processes of suggestion, imitation, and differentiation that traverse it. Tarde's description of the infinitesimal is thus better understood as processual rather than substantive. Recall that he characterizes these agents as sources of change, and as participating in a struggle for dominance as well as cooperation and alliance. If we read the infinitesimal as process, it is consistent with a relational concept of agency. The infinitesimal "agent" is not an enduring, self-identical unit but rather a localized convergence of interactions, a point where relational dynamics become manifest.

I therefore suggest that Tarde's reference to infinitesimal agency does not introduce discrete, infinitely small monads or elements as the enduring metaphysical units that have agency, but

rather that agency is relational because it arises from the network of variations rather than being an inherent property of an isolated agent.

Furthermore, the source of agency is always found at a level below that under examination. As discussed in the section of Chapter IV on the priority of belief over desire, every belief and desire originates at a level beneath its manifestation as a concrete force. This applies across scales—from interstellar systems to societies, humans, organic matter, inorganic matter, molecules, and atoms. This seems to introduce another point of departure from Leibniz, who explicitly rejects the possibility that such a downward progression would eventually lead to an infinitesimal or infinitieth part. Rather than taking Tarde's characterization of elements as proprietors or agents as an ontological claim about the nature of reality, I suggest we understand infinitesimal agents as dynamic processes rather than static substances, that is, relational nodes in a network of interactions, where agency is a quality of distributed or localized expression in a relational system, rather than enduring or self-identical entities.

As for the difference between monads and elements in terms of proprietor and agent, I conclude that there is no element or monad that is merely a proprietor and not also an agent because agency, on the relational interpretation I have proposed, is not a discrete faculty owned by a self-contained entity but an effect of the very network of relational interactions among beliefs and desires that define possession. Since all monads are embedded in such relational fields—as shown by their mutual possession—they are necessarily also sites of agency, even if only minimally or passively so. Belief and desire seem at this point to be the only requirements either for establishing a possessive relation to another monad or to affect a change in such a relation. This raises the question of the difference between monads and elements, which is the

topic of the following section, in which I qualify the claim that all that is required for agency are belief and desire.

4) Monads and Elements

One might expect that a book entitled *Monadology and Sociology* would centrally concern monads, yet in this case one would be mistaken. The terms "monad" or "monads" occur only thirty-one times in this work, whereas the terms "element" (*élément*) or "elements" are mentioned over one hundred times. The difference between monads and elements is little discussed in the secondary literature, and scholars seem usually to assume that the entity Tarde is concerned with is the monad. There are, however, differences between the two that are worth noting. Unfortunately, Tarde does not define either term clearly and does not explain how they relate or what their difference is. I propose the relation between the terms should be understood as follows: I take the term "monad" to refer to an entity as seen from a particular level of observation—for instance, a biologist might treat organisms as monads, while for a sociologist the relevant monads could be individuals or even whole societies. What counts as a monad depends on the frame of reference. Elements, by contrast, are also monads, but on a level that lies beneath or beyond the one currently in view.

Let us consider a few passages that give an idea of how Tarde uses both concepts in this work. In one of these he says that "strangely enough, order and simplicity are manifest in the composite even though foreign to its elements, and then once more disappear in the higher composites, and so on up the scale."[58] The examples he refers to span organic chemistry, meteorology, and linguistics as well as economics, administration, and the military, which gives the impression that "element" means some aspect or part of an organization or system. This meaning is common

[58] Ibid., 43.

throughout *M&S*, most often when he describes the union of atoms in chemical elements, but also in the case of humans as elements of society, which he describes as a "coherent system of persons."[59]

He refers to elements again in a similar way in the next passage, adding, however, that these elements have a mental component even when the system they are elements of is not social as commonly understood: "[As] I look at, listen to, or study nature, rocks, water, or even plants, each object of my thought is a hermetically closed world of elements, which all doubtless know each other or grasp each other intimately, like the members of a social group, but which can be encompassed by me only as a whole and from the outside."[60] I note incidentally that to describe the ensemble as hermetically closed does not mean that Tarde conceives of the element as closed in the way Leibniz's monads are, with no windows and no mutual influence. Instead, he seems to say that from an external perspective, natural elements like rocks and plants are to an extent impenetrable to an external observer, who cannot fully grasp the intricate internal relations holding within, which are nevertheless there, he may assume, generalizing from our experience with the inner workings of society. By the mutual knowing or grasping of the elements that relate to one another in the way required to form a rock or plant Tarde seems to suggest some level of consciousness even on the part of these elements.

In a passage I cited in Chapter II, he makes the connection between elements and consciousness explicit: "Consciousness means in some sense the *cerebral glory* of the brain's most influential and powerful element."[61] This relationship between element and consciousness becomes even clearer when he says: "I call consciousness, soul, mind, the transitory victory of an

[59] Ibid., 36.
[60] Ibid., 56.
[61] Ibid., 34.

eternal element, which by some favourable chance rises above the obscure realm of the infinitesimal, to rule a people of brothers who are now become his subjects, subjects them for a little while to his law, handed down by his predecessors and slightly amended by him, or marked by his royal seal."[62] From this it follows that elements, if they succeed in dominating the other elements with which they form a society understood in Tarde's broad terms, constitute that society's consciousness precisely as a result of their dominance.

The distinction between monads and elements gets blurry when Tarde seemingly uses the terms interchangeably and equates consciousness with directing monads and leading elements: "[T]he facts which have been used to support the hypothesis of unconscious sensibility […] show that our own consciousness (that is, the directing monads or leading elements of the brain) has as its constant and indispensable collaborators innumerable other consciousnesses whose modifications, external with respect to us, are for them internal states."[63] Here Tarde draws a distinction between our consciousness and "us," suggesting that consciousnesses external to us are nevertheless internal to our own consciousness at least in their modifications. We get more, if not much more, clarity from the following passage, according to which elements are intersecting spheres of action:

> Each element, hitherto conceived as a point, now becomes an indefinitely enlarged sphere of action (for analogy leads us to believe that gravity, like all other physical forces, is propagated successively); and all these interpenetrating spheres are so many domains proper to each element, so many distinct though intermixed spaces, perhaps, which we wrongly take to be a single unique space. The centre of each sphere is a point, which is uniquely defined by its properties (*propriétés*), but in the end a point like any other; and besides, since activity is the very essence of the elements, each of them exists in its entirety in the place where it acts.[64]

[62] Ibid., 65.
[63] Ibid., 18.
[64] Ibid., 27.

(Note that "properties" in this context should likely not yet be understood in terms of relations or possessions, but in the conventional sense of distinctive qualities, given that Tarde does not introduce possessions until 20 pages later in *M&S.*) This passage suggests that we think of elements as spheres of action emanating outwards, encountering and influencing or being influenced by other elements, of which they become a part as a result of that influence. This understanding aligns well with the processual interpretation of agency discussed earlier, as it appears that agency is not attributed to an isolated, persisting entity. Instead, activity constitutes the essence of an element which has no defined boundaries other than where its activity reaches, and even then its activity is constantly mixed with that of others. The influence these elements exert on each other is to impose beliefs and desires by means of suggestion and imitation, leading to the directing monad (or leading element) that pertains to a brain and can be understood as its consciousness, internalizing previously external influences.

An image often evoked by Thich Nhat Hanh, a famous Vietnamese Buddhist monk, may help here, although I'm not suggesting that Tarde was familiar with this Buddhist concept. Thich Nhat Hanh says that a flower is composed exclusively of non-flower elements, including sunshine, water, nutrients from the earth, perhaps artificial fertilizer, and carbon dioxide. He says one can see the entire universe in a flower because the flower and the rest of the universe are ontologically entwined, and that this is no less true for everything else. Tarde's word for such relationships is "interbeing," meaning both interconnection and interdependence. From one perspective, rain and sunshine, for example, seem external to the flower and have a larger sphere of action. Yet from another perspective, the action of sun and rain condition the flower's internal

states, because without them there would not be a flower.[65] Applied to Tarde's concept of elements and consciousness, numerous other consciousnesses—which appear external to me yet are essential to my very existence—converge in my dominant monad, creating a unique configuration of influences that constitutes my consciousness. While I may not be directly aware of these other consciousnesses, they are as integral to my being as rain and sunshine are to the flower. But what does this mean for the distinction between monads and elements?

It is helpful at this point to draw out how Tarde understood Leibniz to conceive of the relation between matter and spirit. There are two passages in *Maine de Biran* that allow us to get a glimpse of Tarde's understanding of this point in Leibniz. The first is a footnote that follows a criticism of Spencer's transformism, expressing hope that simplistic views that reduce evolution to mere mechanical movement can give way to a richer, more spiritual evolutionism: "I do not despair of seeing an ardent mysticism blossom from this transformed transformism." The footnote reads: "In the four years since this study was written, these predictions have come true. In his *Cellular Psychology*, Haeckel, the most fervent and one of the most learned disciples of Darwin, gives the doctrine of evolution a most remarkable monadological, Leibnizian interpretation. One could hardly spiritualize matter more completely. "The soul of the atom," says Haeckel rightly."[66] The second passage builds on this one. For context, Tarde is reflecting on the challenge posed to science by the emergence of self-awareness and its apparent irreducibility to mechanical movement. He identifies two ways to address this difficulty: Either by generalizing the "anomaly" of the self, positing that every physical movement, whether in a cell, molecule, or atom, is linked to a sensation and involves an inherent, rudimentary form of

[65] Thích-Nhất-Hạnh, *No Death, No Fear: Comfort in Wisdom for Life* (Riverhead Books, 2003). I adjusted Hanh's original phrasing that equates internal states with external causes to distinguish between causes and effects for philosophical precision while preserving his core teaching on interconnection.
[66] Tarde, *Maine de Biran*, 53.

selfhood; or by denying the anomaly and asserting that the distinction between matter and spirit is illusory, with both being aspects of a unified reality. Both perspectives, he notes, have adherents. He then ascribes the first solution to Leibniz when he says:

> The first, which comes from Leibniz, seems to be in great vogue at the moment; and it is through it alone, in fact, by understanding it well, that we can escape the above difficulty; but, as it is understood in general, it seems to be only a path towards the second way of seeing, where all the slopes of the new theories irresistibly converge. The fascination with the idea of identity leads them there, to the unintelligible.[67]

From these two passages, we learn, first of all, that Tarde did not read Leibniz, as was common during his time, as a spiritual monist, and that Tarde himself also rejects a monistic understanding of spiritualized matter, which he believes to misrepresent Leibniz's monadology. For Tarde, a proper understanding of Leibniz offers a resolution to the dualism of matter and spirit that does not collapse them into one substance. He seems to believe that in Leibniz's framework the distinction between matter and spirit is not an irreducible divide but a difference in perspective: monads (spiritual entities) generate the appearances of material phenomena through their relational activity. Matter is not "illusory" but rather a phenomenal expression of monadic interaction.

This perspective avoids mechanistic reduction by acknowledging some form of interiority or subjectivity within matter itself. But it does not eliminate the distinction between matter and spirit. Matter retains its distinct, non-spiritual aspect alongside its animated or relational one, which prevents the complete absorption of materiality into a spiritual framework, thus maintaining a duality. It appears, then, that Tarde's claim in *M&S* that matter is mind, nothing more, requires qualification. A naive interpretation would be to say that the element is the material foundation of the monad's belief and desire. Yet this can't be right, given the "sphere of

[67] Ibid., 65.

action" description of the element we saw above, as well as Tarde's claim that the victorious element constitutes consciousness.

We also cannot claim that Tarde changed his mind about this limited spiritualization of matter in the years between *Maine de Biran* and *M&S*. This becomes evident from a section in *M&S* where he says there is more to monads than beliefs and desires.[68] When he tries to explain what that more is, however, he speaks of a constitutive *element* having "other tendencies and other instincts which come to it from its other regimentations; and, moreover (we will shortly see the necessity of this corollary), still others which come to it from its basic nature, from itself, from its own fundamental substance which is the basis of its struggle against the collective power of which it forms a part."[69] Given the non-substantial nature of monads I established above, this suggests, perhaps surprisingly, that there is some underlying substrate to elements that has a nature and a self, which does at least make sense in light of the kind of spiritualization of matter he proposes. He provides an example of how tendencies and instincts arise from the basic nature of elements. In the case of elements of human societies, individual human beings, he explains that there are present in us instincts other than social ones, indeed even anti-social instincts that are the result of our organic nature or have an even deeper origin.[70] This shows that human beings are not exclusively formed by means of their social relations with each other. They are also organisms with contrary tendencies that counteract social tendencies. The anti-social instinct he has in mind is "sexual love" (let's call it lust) and he points out how many social structures have fallen victim to it.[71]

[68] Tarde, *Monadology and Sociology*, 36–37.
[69] Ibid., 47.
[70] Ibid.
[71] Ibid.

Does this mean that there is a substantial aspect to the element that cannot be explained relationally? I admit that the term "fundamental substance" strongly suggests this. However, reading on we learn that due to the gradual decent from the human being to the simplest *ur*-elements, "the fundamental nature of the principal substances, employed by life, in particular carbon" consist only in this: that they are different.[72] Any substance, he says, must be composed of elements that are unlike each other, otherwise life could not have arisen. Consequently, I suggest that the fundamental substance giving rise to the instincts and tendencies of an organism is not an essence but instead an internalized relational outcome that has become stable enough to appear as if it were inherent to the element. From this perspective even lust has a relational origin if traced back far enough, for example all the way back to the evolutionary pressures shaped by interaction with an environment.

Elements, then, are merely a complex repository of tendencies that arise from the elements' long relational history. The difference between lust and some more socialized desire lies in their different origin and mode of development. While desires often emerge through imitation and relational dynamics in a social context, lust represents a supposedly primal instinct rooted in the element's participation in overlapping systems, such as its organic or biological nature. This instinct may originate not as a purely internal or pre-relational property but as a stabilized outcome of relational processes shaped by the evolutionary pressures and interactions between organisms and their environments that have become integral to the element's behavior. Thus, lust, while appearing to originate "from within," can still be understood as historically embedded in a network of relational influences.

[72] Ibid., 50.

Let me briefly remark that I do not see this understanding of fundamental substance as contradicting what I established in Chapter IV, where I classified these substances as hypothetical entities that the mind creates from its need to ground forces in something foundational. On the contrary, explaining an element's foundational substance as an internalized relational outcome rather than a fixed essence aligns with Tarde's thesis that substances are mere mental constructs. This alignment reflects his emphasis on the relational and dynamic nature of reality. If we consider substance not as an intrinsic, static kernel of self-identical being but rather as the accumulated and stabilized outcome of myriad interactions, then its hypothetical status becomes apparent. Substance, on this view, is not a metaphysical entity that exists independently of relations but rather a conceptual shorthand, a mental construct that allows us to make sense of the enduring patterns and tendencies observed in elements.

I return to the question of what Tarde means when he claims there is more to a monad than its beliefs and desires. I argue that he thereby refers to the beliefs and desires that are not proper to the level or kind of society that is being considered and that do not present themselves as beliefs and desires that others might imitate. Instead, they are internalized relational outcomes that stem from a more primordial context (such as for example an organism's evolutionary history), though without rendering them fundamentally different from the forces present in a social context. Thus I arrive at my thesis on the relation between monads and elements, namely that a reference to monads describes entities on one particular level or from a particular perspective (for example, from the perspective of a biologist organisms are monads, for a sociologist humans or perhaps entire societies are), and though elements are always also monads they are thus on a different level than the one on which the observer currently stands. Using my examples, for the biologist the cells composing the organism are elements, while for the sociologist individual human

organisms are the elements of a society. I think this explains why Tarde at times uses these terms interchangeably, since the lines between the different levels are by design blurry and after all, a biologist's subject of study may be a complex organism or a single-cell organism. It also explains why he often speaks of elements as the composing part of an organisation, assigning agency to both elements and monads, and why he describes both directing monads and leading elements as conscious.

Here is another passage that I propose can best be grasped with my interpretation of the relation between monads and elements:

> Whatever form possession takes, […] we must first distinguish whether it is unilateral or reciprocal, and second, whether it is established between an element and one or more other elements considered individually, or between an element and an indistinct group of other elements. Let us first speak briefly of this second distinction. When I enter into verbal communication with one or several of my fellows, our respective monads, in my view, reciprocally grasp each other; at least, it is certain that this relation is the relation of a social element with other social elements that are taken as distinct. […] In that case, the possessive action of monad upon monad, of element upon element, would be the only truly fertile relation. As for the action of a monad, or at least of an element, on a confused group of indiscriminate monads or elements, or conversely, it would only be an accidental perturbation of the wonderful works wrought by the elements' duel or by their marriage. As much as the relation of element to element is creative, so the relation of element to group is destructive, but both are necessary.[73]

This quotation is evidence that Tarde views elements and monads as hierarchically ordered and that the relational quality of elements underpins both agency and the emergence of consciousness. This perspective lays the groundwork for the next discussion on the role that an element's nature plays in Tarde's metaphysics.

I can now refine the claim that all that is required for agency is belief and desire. While these are presuppositions of agency, we must also account for the disruptive force of instincts, which originates not in the imitative dynamics of one's social context but in the complex, multilayered

[73] Ibid., 55–56.

"nature" of the element. However, we must understand this "nature" not as the fixed essential nature Leibniz attributed to his monads, but as a result of the interplay between overlapping systems in which the monad's elements participate, such as its organic and biological layers. On the level of the organism, the biochemical relations underlying lust manifest the dynamic force responsible for change, which is akin to desires, though emerging from a more primal context. When these natural instincts affect the level above them—bubbling up, so to speak, to the next level—they introduce foreign influences into that domain, often intensifying their potential for causing change precisely because they originate from outside. In the following section I discuss whether the distinction between monads and elements can be considered Leibnizian, though first I shall clarify the role that the infinitesimal plays for Tarde, as this is key to appreciating the insights for which Tarde praises Leibniz.[74]

5) Infinitesimals, Identity, and Indiscernibility

Tarde and Leibniz agree that all matter can be infinitely divided and that there is no smallest element.[75] I recap briefly what we found concerning Leibniz's position on this point in Chapter III. By referring to something as infinitely small he means that no matter how small it is conceived to be, there is always necessarily something still smaller, while denying that there is an infinitieth part at which this series terminates. When Tarde speaks of the infinitesimal, however, he sometimes seems to be saying quite the opposite, that there is such a thing as an infinitesimal entity at the bottom of reality, for example in the following passages that I will discuss in turn, offering an alternative interpretation that would not only align him much better with Leibniz, but also allow him to stay true to his rejection of substances.

[74] Ibid., 9.
[75] Ibid., 11.

(1) "the infinitely small, in other words the element, is the source and the goal, the substance and the reason of all things."[76]

(2) "These tiny beings which we call infinitesimal" are the "real *agents*, and these tiny variations which we call infinitesimal will be the real *actions*," which puts a strain on my claim that he does not conceive of infinitesimals as entities.[77]

(3) "If everything comes from the infinitesimal, it is because an element, a unique element, initiates some change, movement, vital evolution, or mental or social transformation," which again seems to suggest that the infinitesimal is some sort of minimum to which he assigns the ability to act.[78]

(4) That he does not equate the infinitesimal with the element, however, becomes clear from this passage: "I call consciousness, soul, mind, the transitory victory of an eternal element, which by some favourable chance rises above the obscure realm of the infinitesimal."[79] Thus, the element and the infinitesimal do not belong to the same "realm."

Given what I have established thus far about the relational characteristics of elements and monads and the processual interpretation of agency, it would be very much at odds with Tarde's theory were we to regard a substantial infinitesimal to be a tiny being at the basis of all that there is. It also would be a gross misreading of Leibniz if Tarde expected to rely on him to support such a theory. I propose an alternative interpretation that relies on understanding elements as a conceptual shorthand, a mental construct that allows us to make sense of observable, enduring patterns and tendencies, as I suggested in the previous section.

[76] Ibid.
[77] Ibid.
[78] Ibid., 12.
[79] Ibid., 65.

Since Tarde seems to equate or at least compare the infinitesimal with the element in three of the four passages just quoted, allow me to consider the evidence that he does not believe there to be a smallest element. In one such text, he says that "these ultimate elements which form the final stage of every science … are ultimate only from the point of view of their particular science."[80] While this point does not establish beyond doubt that Tarde believed there cannot be ultimate elements, it seems at least to support this claim rather than its opposite. But taken together with his suggestion that the "ultimate foundation of material substance" are not the "raw materials" that make up an organism, but rather beliefs and desires, it appears more likely that he would not argue for there to be a smallest material part.[81] With that in mind, I turn to the quotes from above and suggest an interpretation of infinitesimals that aligns with Tarde's broader theory.

Tarde's suggestion in (1) that "[t]he infinitely small, in other words the element, is the source and the goal, the substance and the reason of all things," might seem to suggest that he sees the infinitesimal as a metaphysical foundation akin to an essence. However, I think this passage's language of "source" and "goal" suggests something else. Instead of seeing the infinitesimal as a fixed, substantial entity, we should understand it in terms of Tarde's view of reality as dynamic and relational, where infinitesimal variations are the smallest observable, or perhaps conceivable, units of change and difference. Rather than a "substance" in Leibniz's sense of the term, the infinitesimal would then represent a process of differentiation that underlies all phenomena. The "substance" here may not be an essence but rather a placeholder for the relational interplay of forces that generate and sustain observable reality, which would make sense of the equation of

[80] Ibid., 11.
[81] Ibid., 21.

the infinitesimal and element, since I suggested that elements are not to be understood as substances either.

When in text (2), Tarde says that "these tiny beings which we call infinitesimal" are the "real agents, and these tiny variations which we call infinitesimal will be the real actions," he seems to personify infinitesimals as "agents." Instead of reading this as requiring a persisting substance as the subject of the action, however, I understand the infinitesimal to represent the minimal unit of change in Tarde's relational framework, and one whose action is not independent of but results from interaction within a greater network. This understanding aligns with Tarde's notion of agency as inherently relational: infinitesimals act not because they are substantial beings with a self-contained source of power, but because they conceptually represent the forces and relationships that constitute dynamic systems.

In (3), Tarde suggests that "If everything comes from the infinitesimal, it is because an element, a unique element, initiates some change, movement, vital evolution, or mental or social transformation." If we understand elements as local nodes of relation in a greater network, the infinitesimal would then represent the smallest unit or aspect of these relations at which differences are observed or measured. On this reading, the "unique element" does not have an intrinsic essence but derives its identity and capacity for action from its position in a web of relations. The infinitesimal, rather than being a fundamental particle, is a concept that helps describe the granular nature of these relational processes.

In the last passage, (4), we get more insight into how elements and infinitesimals differ. Tarde says: "I call consciousness, soul, mind, the transitory victory of an eternal element, which by some favourable chance rises above the obscure realm of the infinitesimal." Here he explicitly distinguishes between element and infinitesimal: If the infinitesimal represents the granular or

foundational aspect of relational processes, the element occupies a higher, more organized level of existence. The "realm of the infinitesimal" would then signify a pre-relational or pre-organized domain, while the "element" would be what temporarily arises from this realm as a result of relational processes. According to this interpretation, then, the introduction of infinitesimals is a way to understand the granularity of relational processes, while elements are the result of the organization or stabilization of infinitesimal variations into recognizable processes, not substantial in themselves but deriving their properties from the interplay of the infinitesimals they encompass. In other words, infinitesimals are units of change in belief and desire that provide the true raw material for relational processes, while elements represent the higher-order structures that emerge from these processes.

Like Leibniz, then, Tarde does not view the infinitesimal as a smallest, infinitieth part, and both agree that there is no end to the decent into the infinitesimal. They further agree that the infinitesimal is "qualitatively different from the finite."[82] This suggests that the infinitesimal is not simply a smaller version of the finite, i.e., something limited in size, but that there is some qualitative difference. We are unable to explain movement by reference solely to something finite because in order to move from point A to B an object must pass through an infinite number of intermediate points. So, there must be a different explanation and it must draw on the infinitesimal because the infinitesimal has different characteristics than the finite. While the finite is quantifiable in terms of position, distance, and displacement, the infinitesimal is not quantitative but rather qualitative. Let's explore what he means by that.

In Chapter I I discussed Tarde's idea that beliefs and desires are quantities in contrast to the qualities of sensation. He was already stretching the concept of quantity in that context and now

[82] Ibid., 11.

he does it again when using this concept in a rather unconventional way. Quality commonly means a distinguishing attribute or characteristic that, according to Aristotle, does not constitute the essence of the substance. Clearly, then, this is not what Tarde means when he speaks of the qualitative nature of infinitesimals. I think he means instead that the infinitesimal transcends quantification, a reading for which I find confirmation in this passage from *M&S*:

> *If the infinitesimal differed from the finite only by degree*, if at the basis of things as at their perceptible surface there existed only positions, distances, and displacements, why would a displacement which is inconceivable in the finite realm change its nature in becoming infinitesimal? The infinitesimal, therefore, is qualitatively different from the finite; movement has a cause distinct from itself; being is not exhausted by what appears in phenomena. Everything comes from the infinitesimal and everything returns to it; nothing in the sphere of the finite and complex—a surprising fact which nobody is surprised at—appears suddenly, nor dies away. What should we conclude from this, if not that the infinitely small, in other words the element, is the source and the goal, the substance and the reason of all things?—While the progress of physics leads physicists to *quantify* nature in order to understand it, it is remarkable that the progress of mathematics leads mathematicians, in order to understand quantity, to resolve it into elements which are not at all quantitative.[83]

Here Tarde states that the infinitesimal is qualitatively distinct from the finite, which suggests that the infinitesimal cannot be understood merely as a smaller version of finite quantities or movements and supports my point that there is no smallest element. Instead, the infinitesimal introduces a different kind of existence, one that underpins and generates the finite without being reducible to it. While the finite world is characterized by measurable positions, distances, and displacements, the infinitesimal operates on a different plane beyond quantification. It seems instead to be a realm of potentiality and causes that are not directly accessible to the senses or by other methods of measuring. Tarde's claim that "being is not exhausted by what appears in phenomena" reinforces this point. The infinitesimal is the hidden, foundational level that gives rise to the observable finite world but is also that to which the finite returns as through time and interaction it dissolves. On this understanding, the infinitesimal provides the potential for

[83] Ibid.

change, including destruction in a dynamic, cyclical relationship in which the infinitesimal is the driving force, the "real action," as we saw earlier. I believe that the key characteristic of the infinitesimal is its ability to make change and be the cause of difference. Tarde's assertion that "Difference is the alpha and omega of the universe; everything begins with difference, […] everything ends with difference" confirms this understanding of the infinitesimal.[84]

Mathematics uses infinitesimals to explain continuous change (e.g., in the calculus), but these do not behave as conventional numbers. Similarly, Tarde's infinitesimals underpin finite phenomena without reducing to the measurable properties of the finite. In an attempt to justify Tarde's use of the term "quality" for infinitesimals, we could consider the parallel between a quality commonly understood as something that differentiates substances and Tarde's infinitesimal as the source of differentiation and change. Yet Tarde's quality is inherently dynamic rather than a static attribute, which is in keeping with his relational metaphysics in which everything arises through interaction and change and nothing exists in isolation.

With difference at the basis of everything, Tarde maintains that there are no two elements that are the same even if their differences escape empirical detection. This holds as much for human beings as for chemical elements. While the periodic table organizes elements according to the number of protons, a principle that differentiates kinds of elements, Tarde suggests that even within a single kind—such as individual atoms or molecules of the same substance—there may be subtle, underlying differences, a concept scientifically validated by the existence of isotopes.[85] Methodologically, he feels justified in extending this conclusion from the social to the molecular realm because both belong to the same world. He goes so far to say that two atoms of a single kind (two carbon atoms, say) can form a compound only because there is as much difference

[84] Ibid., 40–41.
[85] Ibid., 50.

between the atoms as there is between two human beings that allows for sexual union, a difference "without which they could only bump together."[86] If one were to push Tarde on this point and ask for empirical evidence, he might suggest that we be humble and consider that the inadequacy of our instruments may well be the reason why we are unable to descend further down the slope of the infinitesimal, adding that "since, after all, the fundamental nature of things is strictly inaccessible, and we are obliged to construct hypotheses in order to penetrate it, let us openly adopt this one [the sociological point of view] and push it to its conclusion."[87]

6) Dominant Monads and Consciousness

In this section, I return to the discussion commenced in Chapter II on dominant monads and consciousness. I begin with a summary of results so far and the uncertainties that remain. I then draw on the new background we have obtained on Leibniz's monads and Tarde's development of the concept to resolve these uncertainties.

In Chapter II I examined the relationship between dominant monads and consciousness as well as consciousness and movement. I found seemingly competing contentions in *M&S* and *Maine de Biran*. In the former work Tarde suggests that the "desired reduction" of movement and consciousness can be achieved under the monadic hypothesis, while four years earlier in *Maine de Biran* he argues that there is a radical distinction between the two. Earlier I showed that dominance relates to one monad's mental capacity to promulgate its beliefs and desires more broadly than another, but also that Tarde considers consciousness to be "the cerebral *glory* of the brain's most influential and powerful element." [88] I argued then that dominance and consciousness are closely correlated but left hanging the question of the precise way in which

[86] Ibid.
[87] Ibid., 34.
[88] Ibid.

there can be a scale of more and less dominant monads, as the textual evidence suggest, and the way in which we might resolve the apparent tension between Tarde's seemingly conflicting position on the relation between consciousness and movement.

Focusing first on the reduction of consciousness and movement, I have already shown how Tarde proposes that "movements of bodies would be nothing other than types of judgments or objectives formulated by the monads."[89] With our evolved understanding of what these monads are we can be sure that this remark does not mean that movement does not exist independently of the mental state of an entity that perceives it. Rather, he reinterprets movements as relational phenomena, using monads as mental crutches responding to our seeming compulsion to stipulate an actor when we see an action. We must always keep in mind that monads are not the actors; the processes are. But since Tarde uses this language of monadic actors, we shall indulge him for the moment.

Dominant monads are those successful in propagating their desire as natural laws to which bodies are subjected.[90] This dominance is linked to a monad's superior mental capacity to move bodies in a certain way, creating repetition and similarity to such an extent that they become regarded as an outcome of natural law. Understood in this way, dominant monads would be particularly successful agents, with the ability to disseminate their beliefs and desires furthest, making other monads imitate them.

Correcting this language now to account for Tarde's theory of processual activity without an underlying actor, I rely on the alternative interpretation of dominant monads actually being dominant *theories or ideas* rather than individual entities, as suggested in Chapter II. The *idea* of a natural law manifest in movement and gaining dominance is easier to accept than that of an

[89] Ibid., 17.
[90] Ibid., 27.

individual entity's desire for a certain natural law being successful in convincing all matter to move in accordance with this desire. But the main point is that movement is an effect of agency.

The role of consciousness in the second claim—that consciousness cannot be reduced to movement—becomes clearer when Tarde explains the role of the observing mind in the context of sensations. He proposes that it is the mind which unifies sensory stimuli into a sensation. When we perceive a unified sensation, this unity is only phenomenal, an appearance. In reality, there are only different relations. "It is the unity of the self which brings about this mysterious cohesion," Tarde says.[91] He makes this comment in the context of explaining the sensations we perceive in connection with an external body, pointing out that such sensations are incomprehensible if we only consider the body's chemical makeup. In other words, we cannot explain the perceived qualities that we ascribe to an apparently unified body if we consider only its external physical attributes. The elements of the body are not responsible for the sensations they provoke. Chlorine and calcium are not responsible for the flavour, colour, or odour of cooking salt.[92] It is the conscious perception that is responsible for the sensation, which is always simple as opposed to composite. There is as well a temporal dimension to the unifying power of consciousness, as we can see from Tarde's claim that it sometimes takes an accumulation of sensitive elements to attain the level of consciousness. And it is consciousness that bundles the temporally distinct impulses together and adds the quality of sensibility that they previously lacked.[93] I conclude that it is also consciousness that lends cohesion to successive cerebral movements even when they have nothing whatever to do with sensations, as Tarde also insists.

[91] Tarde, *Maine de Biran*, 95.
[92] Ibid., 94.
[93] Ibid., 95.

With this understanding in place, I propose that Tarde can say both, as he did in *Maine de Biran*, that we can't reduce consciousness to a mechanical process, and also, as in *M&S*, that the desired reduction of movement and consciousness can be achieved under the monadic hypothesis, i.e., "that the whole external universe is composed of souls distinct from my own but fundamentally similar."[94] Tarde is making two entirely different points here. First that a conscious experience cannot be reduced to a change in the physical state of the brain, suggesting the two are entirely separate with consciousness adding something novel, namely the sensation, which is present neither in the external world stimulating our senses, nor in the brain's mechanical process. Instead, and secondly, Tarde speaks of the role consciousness plays as the cause of all movement. This again is Leibniz's point against Descartes that matter when understood as mere extension would not be able to move.

Continuing to the second uncertainty around differing degrees of dominance and consciousness, we can draw from Leibniz's theory of infinite division as well as causality to understand how this works. I argued in Chapter III that for Leibniz there are three ways in which dominant monads are dominant: either by providing mental unity to the parts of the body to which the monad pertains; by a higher mental power that accounts for the hierarchy among inorganic and organic matter, animals, and humans; and by being the monad that best explains any change of state in another monad. We saw how Leibniz interprets the latter kind of dominance as causal agency because the actions of the subordinate monad are better understood when regarded in light of its contribution to the purpose of the dominant monad. This aspect of Leibniz's theory resonates in Tarde, though with notable differences. The picture that emerged in Chapter II was that while dominance and consciousness are the same thing, both are matters of

[94] Ibid., 60–61. *Monadology and Sociology*, 15.

degree. An uncertainty that remained was how to reconcile the apparent implication that not all monads are dominant, given that there wouldn't be any monads left to be dominated, while at the same time asserting that dominant monads have innumerable helpers which are incorrectly described as unconscious.

We now see that introducing degrees of consciousness and dominance does better justice to Tarde's argument. The ultimate element is only ever relatively ultimate. Likewise, the dominant monad is only relatively dominant: the dominant monad or consciousness of Newton's great scientific theory is the element in his brain that unifies into one coherent account all the ideas of its collaborators, which are other elements of that brain but also countless elements of other brains. Of course, the leading element of any scientist's brain is another dominant monad and while these are surely also conscious, it is possible that they are less so compared to the dominant monad in Newton's brain, which also constitutes the dominant monad of his physical hypothesis. Leibniz's theory helps to clarify this difference in levels of consciousness, especially with his thought that the dominant monad is that in light of whose purpose the actions of the subordinate monad are best understood.

I think it is plausible that Tarde implicitly follows Leibniz in taking the monad that serves as the best explanation for a subordinate monad's actions to be the dominant monad, which renders monadic dominance a matter of degree as well as a matter of perspective, as was also the case for the ultimate element. Consider any scientific thinker who contributed to Newton being able to formulate his law of gravity. It is an elegant explanation that fits well with Tarde theory of imitation to say that this thinker's beliefs gained dominance over those of others, found their way to Newton's brain's dominant monad while spreading throughout the universe, were assimilated into that monad's belief system, and now, forming only a part of Newton's brain's dominant

monad's beliefs, they have lost their status as dominant beliefs, though only from the perspective of an admirer of Newton's great theory. If we limit our perspective to the brain of that earlier thinker, the beliefs in question may well remain the constituent aspects of its dominant monad. But it is as part of Newton's theory that the other thinkers' beliefs enjoy their greatest impact. Perhaps without being assimilated in this way, those now subordinate beliefs would not have continued to propagate. Hence, it would be fair to say that it is Newton's brain's dominant monad that causes the continuous propagation, i.e., movement, of all the beliefs that form part of that monad, which makes sense of Tarde's claim that it is the dominant monad, or consciousness, that is responsible for movement as well.

In Chapter III we saw that a core aspect of Leibniz's monadology is the infinite division of matter and the claim that the dominant monad is the underlying unity of the substance, with the subordinate monads performing its functions. Body is perceived as one by an outside perceiver, leading to a mere conceptual unity. I remarked that Tarde is not very interested in the concept of unity, but he nevertheless explains, albeit briefly, how elements are formed into a whole or in his terminology into a society, which is always a transitory state. Leibniz had already observed that a body's component parts constantly change. In contrast to Leibniz, however, Tarde is perfectly comfortable with this instability and doesn't seem to see a need to explain why we perceive ourselves to exist as the same entity over time despite the obvious changes to our bodies and mental states.

7) Uniqueness and Difference

One last but still important aspect of Tarde's theory and its relation to the philosophy of Leibniz is the suggestion that difference lies the bottom of everything. At the outset of Chapter III, I claimed that Tarde's metaphysics of possession depends on Leibniz's dissolution of being

and simplicity, though I postponed the discussion of this influence. Having elucidated Tarde's metaphysics of possession, I now offer some account of where I see Leibniz's influence on Tarde in this regard.

The less interesting commonality between Leibniz and Tarde is the agreement that each monad is entirely unique. We discussed this from Leibniz's perspective in Chapter III (section 5), concluding that this is so because every monad contains a complete representation of the universe from its unique perspective albeit with different degrees of distinctness depending on how near the relation of the represented thing is to the monad.[95] That makes each monad's notion of itself a mirror of the entire universe, though from a perspective no other monad shares exactly. Each monad is unique for Tarde as well because every monad is a point of intersection for some slightly different combination of beliefs and desires or, put differently, because each monad possesses all other monads though with differing degrees of intensity. The parallel is fairly obvious, namely that for both Leibniz and Tarde all monads are connected with each other and are in some way aware of this fact. For both this also means that each monad is essentially characterized by every other monad. The difference is that for Tarde the relationship among the monads is one of mutual influence, which Leibniz regards as impossible, while for Leibniz this relationship is established by the fact that all monads form part of the best possible world, with each monad's existence determining that of every other monad, though mediated by God's creation.

Matters get more interesting when this difference among monads is offered as the reason for change in the world. Earlier I quoted the following passage from Leibniz's *Monadology* but

[95] Leibniz, *Monadology*, para. 60.

since it accentuates the parallel between Leibniz and Tarde particularly well I reproduce it once more:

> The Monads must have some qualities, otherwise they would not even be existing things. And if simple substances did not differ in quality, there would be absolutely no means of perceiving any change in things. For what is in the compound can come only from the simple elements it contains, and the Monads, if they had no qualities, would be indistinguishable from one another, since they do not differ in quantity. Consequently, space being a plenum, each part of space would always receive, in any motion, exactly the equivalent of what it already had, and no one state of things would be discernible from another.[96]

He is defending the view that monads must have some qualities despite their having no internal parts or motions of those parts. So a monad's change in internal qualities is not a change of location in any of the material parts that pertain to the monad. Instead, it is a change in perception, its internal state. Given the perfect correspondence between a monad's perceptions and change in the physical world there would in fact be no observable change in the physical world without a change in monadic qualities.

While clearly inspired by Leibniz's emphasis on difference, Tarde's argument takes another route. He suggests that change would be inexplicable if we hypothesize that there is one simple being at the beginning of the universe, since in that case what reason could there be for observable diversity? The original simple being would have had to suffer a first and many subsequent divisions, changes that are inexplicable since the hypothesis of a simple being does not allow for any internal difference, and without such difference there can be no explanation of an impulse to change. Consequently, there must be difference at the beginning which can be organized, streamlined, and repeated, though only to give rise to new differences.[97] Hence, Tarde says: "Difference is the alpha and omega of the universe; everything begins with difference, with

[96] Ibid., para. 8. Elsewhere Leibniz offers this as a reason to reject atomism. See Leibniz, "Of Ideas," paras. 230–231.
[97] Tarde, *Social Laws*, 91–97.

the elements whose innate diversity (which various reasons make probable) can in my view be the only justification of their multiplicity."[98] As a matter of fact, for him, even identity is merely "the *minimal degree* of difference."[99] Thus while Tarde wants to explain regularities, unities, and similarities, he always does so from the starting point of difference. "It can thus be seen from these examples that, strangely enough, order and simplicity are manifest in the composite even though foreign to its elements, and then once more disappear in the higher composites, and so on up the scale."[100] It is of course the dominant monads and their success in getting other monads to imitate them that are responsible for the manifest regularity of any larger system.

Tarde observes that his opponents and most sociologists, indeed most scientists, explain unity, regularity, and similarity by means of nomological structure and declare differences to be no more than superficial surface phenomena.[101] According to Tarde, it is a common error to believe that the unknown, that is, entities too far removed for us to experience their nature, are homogenous, undifferentiated, or indistinct.[102] In Leibniz, however, Tarde found what Debaise calls the "beginning of a movement of dissolution of classical ontology (notably the identity of 'being' and 'simplicity')."[103] Leibniz seems to have inspired Tarde's claim that diversity, not simplicity, is at the heart of everything.[104] While Tarde modifies the details, the resemblance to Leibniz's idea that every monad is a mirror of the entire universe is undeniable. Moreover, as this universal mirror idea is evident in Leibniz's *Monadology*, it was available to Tarde at his time of writing.

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[98] Tarde, *Monadology and Sociology*, 40. This is clearly reminiscent of Leibniz's law of continuity introduced in Chapter III.
[99] Ibid.
[100] Ibid., 43.
[101] Tarde, *Social Laws*.
[102] Tarde, *Monadology and Sociology*, 40.
[103] Debaise, "The Dynamics of Possession," 222.
[104] Tarde, *Monadology and Sociology*, 27.

8) Societies as ensembles of monads, not entities *sui generis*

I conclude this chapter with a summary of what we have learned about the Leibniz/Tarde relationship and by tying what I have argued about Tarde's metaphysics back to his sociology and theory of imitation. That theory of imitation aspires to provide an alternative explanation of the origin of societies. Durkheim and following him generations of sociologists had understood societies as entities *sui generis*, existing independently of individuals. Sociological individualists, unlike Durkheim, think that societies are nothing beyond the individual components that form their parts, yet they are unable to explain the influence society exercises over individuals in practically all aspects of life. Tarde's alternative is that monads that share a certain subset of similar and relatively stable beliefs and desires form ensembles or societies precisely as a result of sharing those beliefs and desires, that is, as a result of having acquired them by means of imitation. "Society," he says, "may therefore be defined as a group of beings who are apt to imitate one another, or who, without actual imitation, are alike in their possession of common traits which are ancient copies of the same model."[105] Again elsewhere he says: "a society […] is essentially a collective and enormously inclusive mind,"[106] and that each individual reciprocally possesses every other.[107] In light of the background tradition of thought that frames Tarde's theory we can now make sense of these seemingly very different definitions.

In the first passage, we glimpse the interconnection of all beings forming a particular society, both through direct mutual imitation and through the common ancestors everyone imitates. We now know that this interaction among the elements forming a society is mental and that the content of the imitations are beliefs and desires. We also see that Tarde agrees with Leibniz in

[105] Tarde, *Laws of Imitation*, 68.
[106] Tarde, *On Communication and Social Influence*, 133.
[107] Tarde, *Monadology and Sociology*, 51.

the spiritualization of the elements that aggregate into a society by means of their mental bonds. But Tarde diverges considerably when he introduces interactions among the elements. In the second of the passages just mentioned, the individual element is absent and the emphasis falls on a society being a mind that is a collective and inclusive of many other minds. We can understand that now, having learned about Tarde's account of subordinate minds contributing to the dominant monad's leading purpose. The hierarchy of monads is again something Tarde took over from Leibniz, though introducing the radical innovation of monadic interaction. He uses Leibniz's idea to describe dominance in terms of the best explanation for another's action, which is also his explanation of consciousness. Tarde aligns with Leibniz here because the subordinate monads' actions remain influential as part of the system to which they contribute, which explains why Tarde also understands dominance or consciousness as movement, since the dominant monad is most successful in propagating its beliefs and changing those of others, driven by its desires, all the while benefiting from the beliefs it accumulated with the help of its subordinates. At this point, an important aspect of Leibniz's theory is the infinite division of bodies as well as the insight that difference lies at the heart of everything. Both agree that without these crucial assumptions, movement cannot be explained. Lastly we see how Tarde draws on his theory of the mutual possession of every monad by every other. While this concept of possession is certainly new, the idea that each monad is essentially characterized by all the others obviously evokes Leibniz's idea of the monad as a mirror of the universe.

Important differences are Tarde's rejection of any role in his theory for the idea of God, replacing the idea of pre-established harmony among monads in the best world with direct imitative interaction. I have shown, however, that this difference is not all that pronounced

considering that for Leibniz too it is *as if* all monads influenced all others, though only because God makes them appear that way.

Tarde does not say why he does not need a divine first cause. Leibniz is clear—we need a Creator—but Tarde commences his narrative with a difference that starts the process of differing, drawing from an innate principle of action, similar to Leibniz, which eventually leads to networks of rays of imitation that create highly complex societies. Thus, Tarde's framework doesn't require a divine cause to initiate or regulate interactions among these hypothetical entities. Still, this does not explain why there is anything at all and Tarde does not seem inclined to take up this question. Instead, he merely attempts to provide a more plausible explanation for what is. His idea is that by placing difference at the heart of things and conceiving of relations as the primary building blocks of reality, he can go much further than a thinker could by merely stipulating some primordial being.

There is another advantage to the monadological thesis. It reminds us of the inevitable limitations and abstractions involved in an explanation of phenomena that we do not form a part of and thus have imperfect access to, mediated by measurement and experiment. The theory of monads compels a humble approach to scientific inquiry, recognizing that theories are mere constructs that approximate reality. The monadological thesis thus advances an awareness that while our statistical and experimental tools provide insight, they do not disclose the reality itself, being no more than representations conditioned by our perceptions and theoretical assumptions.[108]

I add a brief note regarding monadic persistence, which was an important topic for Leibniz.[109] If we understand monads to be points of intersecting belief and desire, as following Debaise I

[108] Ibid., 25.
[109] Leibniz, *Monadology*, para. 4.

suggest we should, and that for Tarde monads play a merely functional role, then these monads persist over time to the extent that the belief and desire whose intersection constitutes the monad persist. I said earlier that every time a new belief enters the intersection of pre-existing belief and desire pairs, a new monad is formed. I think that is right, but the new monad retains most of what constituted the previous monad, as not all belief and desire pairs are replaced at once. Debaise also suggest that as monadic perception does not come without appetition, belief never comes without the desire to influence and thus possess another monad.[110] This is supported by the fact that Tarde holds desire to aim at maximally expanded beliefs.[111] Under this assumption, the monad would always persist as it is, insofar as it is the intersection of the desire that is innate to the belief. But this can of course only hold for the smallest possible kind of monad, one that consists of just one belief/desire pair. Lastly, when Tarde says that a monad's beliefs and desires are entirely submerged by a more dominant monad but nevertheless continues to serve as a vehicle for the spread of these new beliefs and desires, I interpret him to mean that while the monad persists, its role in the society it forms with countless other monads is diminished to a passive one, its ideas having originated elsewhere entirely and it merely passes through them.

With Tarde's social theory of reality, we gain a deep and novel understanding of social structures. As impersonal as our systems may seem, they are the result of very large numbers of innovations, oppositions, and imitations, perhaps too many for precise reconstruction, although it is nevertheless possible to trace the processes whose many steps are responsible for the (only apparently) stable systems of structure and function. We can see beyond the unified façade and recognize the multiplicity that composes them. Having the benefit of being ourselves part of sociology's subject of study, we know that all our institutions, as difficult it may be to fathom

[110] Debaise, "The Dynamics of Possession," 227.
[111] Tarde, *Monadology and Sociology*, 34.

them as emerging from a human brain, are indeed nothing but accumulations of infinitely many innovations by many different contributors, solidified by widespread and longstanding imitation, and surviving untold opposition. We can explain the influence that societies have on individuals by means of strong rays of imitation that form part of the integrated beliefs and desires of many monads and disturbed by few other influences. We experience the influence of an imitative model as an external force only because the origins of our institutions are now remote and not easily visible, which makes them appear as if they were not formed by us, the current generation under their influence. But really, they are our own beliefs and desires, which we share with a great number of others, both contemporary and ancestral.

A consequence of this theory that monads sharing a certain belief form a society is that the elements that compose social systems do so only with some of their aspects, while in their other aspects they are part of other systems. So, monads form part of the work force as well as of the many individual workplaces, the workers' families, and so on. This explains Tarde's assertion that the whole is always less complex than the parts that compose it because certain characteristics of the parts do not belong to the particular whole in question; they overflow every particular whole. This overflowing is at the same time the reason why social institutions can and do change. Elements that compose a society change their beliefs over time, and when they change sufficiently many of the ones that constitute the set characteristic of that society, they no longer form part of the society, which is formed by monads that share a particular set of beliefs. Other monads may in turn add new beliefs to their integrated set, which then overlaps with the set held by the monads forming that society, hence making those other monads now part of that society as well. Furthermore, the monads that form a society may all change a particular belief that is part of the set that previously formed the society (incrementally, by imitation) and hence

change what beliefs constitute the society or, strictly speaking, form a new society that now holds slightly different beliefs. We thus see why for Tarde stability and order are never more than merely transitory stages.

There, then, is the picture Tarde paints of societies and individuals. These two concepts are still perfectly usable in sociological discourse as long as we understand them to form open, ever-changing, and interdependent relationships rather than stable unities that are distinct from their constitutive elements. In the next chapter, I use this sociology to enrich contemporary liability reform proposals in the age of artificial intelligence.

Chapter VI: Tarde, Latour, and AI liability frameworks

In this final chapter I highlight the enduring relevance and modern applicability of Tarde's philosophy, demonstrating that his relational metaphysics offers valuable insights into contemporary questions of the agency and liability of autonomous artificial intelligence (AI) systems. Throughout this thesis, I have traced Tarde's theory of imitation as the foundation of social interaction, his relational conception of entities as temporary societies of beliefs and desires, and his interpretation of agency as epistemic dominance rather than mechanical causation. While concepts such as continuity and physical force were important for developing Tarde's metaphysics in earlier chapters—and remain useful for understanding his overall system—they do not play a central role in the present discussion. Here, I focus on the aspects of his thought most relevant to questions of agency, action attribution, and liability: imitation, possession, explanatory dominance, and the relational constitution of entities. I thereby show that Tarde's metaphysics does not merely contribute to abstract philosophical debates; it also provides a conceptual apparatus to clarify contemporary questions raised by rapidly evolving technologies.

The age of AI exemplifies the kind of complex relational reality that Tarde's metaphysics is well-suited to address. AI systems challenge conventional assumptions about individual agency and responsibility, as well as the distinction between society and nature. This has led to a growing body of debate around how current liability frameworks—built on those traditional assumptions—can or should be adapted to address harms involving increasingly autonomous AI systems. These frameworks tend to falter because they presuppose stable, discrete agents to whom actions can be clearly attributed. In response, scholars have proposed various forms of liability reform—legal and conceptual shifts aimed at better capturing the distributed, relational

nature of agency in AI contexts. Tarde's insights can help by explaining how such reform is possible, grounded in a metaphysics that treats agency as relational and distributed.

Therefore, I bring Tarde's philosophy into dialogue with contemporary debates on AI liability. I argue that applying Tarde's relational metaphysics reveals the limitations of fault-based liability models and underscores the necessity of rethinking liability as collective. Drawing on the insights developed throughout this thesis, particularly Tarde's emphasis on quantitative beliefs and desires, imitation, explanatory dominance, and the inherent arbitrariness of entity boundaries, I suggest a novel approach that embraces a limited legal personhood for AI in combination with a societal-level conception of collective responsibility. We shall see how Tarde's prescient thought anticipates modern challenges and opportunities and can guide us toward more coherent, just, and pragmatic legal frameworks for a world increasingly populated by artificial agents. I hasten to add that the current debate on these topics is not waiting for Tarde to enlighten its participants. Tarde's ideas, themselves largely unknown to most legal scholars but channelled by Bruno Latour and others, have already reached the places where they are most needed today, e.g., the question of legal personhood of AI systems. However, knowing the roots and the metaphysical details that I expose enriches and advances the argument, as I will show.

I begin this chapter by summarizing the insights relevant for this purpose, drawing from the introduction and Chapters I through V, particularly Tarde's laws of imitation and his relational metaphysics. I then briefly examine contemporary liability frameworks, highlighting their implicit metaphysical assumptions, which draw selectively from Durkheim's holism, Mill's psychological individualism, and Popper's institutional individualism. We will see that these frameworks are inadequate for addressing the reality of socio-digital institutions formed in whole or in part by artificial agents whose entanglement with our world makes their boundaries so

unstable and fuzzy that we cannot convincingly conceive them as stable entities, even less so than humans. Tarde observed this to be the case for humans no less than other conceivable entities, drawing the conclusion that there are no such things as stable entities, only temporary societies.

I show how current debates around AI liability which concede the shortcomings of existing liability frameworks when faced with increasingly autonomous AI have largely overlooked Tarde's insights, instead turning primarily to Bruno Latour's Actor-Network Theory (ANT). Although Latour initially developed ANT independently, he later acknowledged Tarde as an intellectual ancestor whose relational metaphysics anticipated key ANT concepts.[1] I suggest that, while Latour has provided a valuable basis for suggestions to reform liability frameworks, explicitly returning to Tarde's original ideas can further clarify the nature of AI agency and help resolve conceptual problems within current AI liability debates.

1) Summary of preceding chapters

To remind ourselves of the social theories discussed in the introduction, which I argue form the implicit basis of traditional liability frameworks, let us briefly revisit Durkheim, Popper and Mill. Durkheim's holism conceives of society as an entity *sui generis*, irreducible to its individual members and their psychological states. Social phenomena, or "social facts," such as suicide rates or customs, exert an independent causal force upon individuals. Durkheim explicitly rejects explanations based on individual psychology or imitation, insisting that collective phenomena exist prior to their individual manifestations and that we must understand them solely through preceding social facts. Although Durkheim's holism emphasizes the coercive and

[1] Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy* (Harvard University Press, 2022), 259, footnote 47.

autonomous character of society, it leaves unexplained the ontological status of this *sui generis* social entity and how it emerges from individual interactions, resulting in a somewhat mysterious conception of society.

Mill's individualism provides a stark contrast by insisting that social phenomena can and must be reduced to individual psychological laws. Mill argues that collective behavior is merely the aggregate outcome of individual actions determined by human nature, subject to external circumstances. However, Mill neglects how profoundly social institutions shape individual psychology. In reaction, Popper attempts to balance individualism with an acknowledgment of institutional influence on individual choice and action. Popper argues that we can properly understand human psychology and action within an institutional context, thereby implicitly granting the explanatory priority of social structures, even as he explicitly denies holism. Yet Popper's reconciliation ultimately remains incomplete, leading to a theoretical tension where individual agency and institutional determinism uneasily coexist without full integration.

As I showed in the Introduction, neither Durkheim's holism nor the individualisms of Mill and Popper adequately account for how social phenomena are dynamically formed and propagated through society. Durkheim overlooks the role of individual agency in creating and sustaining social facts, while Mill underestimates how social contexts shape individual psychology, and Popper struggles with the contradiction between his individualist ontology and his institutionalist leanings. Tarde's theory, by contrast, emphasizes imitation as the mechanism through which beliefs and behaviors spread across society, dissolving the untenable dichotomy between individuals and society. As such, Tarde's approach provides a more robust foundation for understanding the inherently relational nature of social phenomena, thereby offering a more

coherent theoretical underpinning for addressing contemporary challenges like algorithmic liability, as I show throughout this chapter.

In Chapter I, I explained what imitations are, what it is that is being imitated, namely, beliefs and desires, the characteristics that lend themselves to imitation, namely their quantitative nature, and the role of imitation in forming societies. This imitative dynamic forms the basis of what Tarde calls "societies," understood not as fixed entities but as temporary groupings shaped by shared belief-desire flows. Because beliefs and desires have quantitative aspects, they can be measured, aggregated, and traced across time forming nodes where they are aggregated, i.e., monads, which includes non-human agents like AI systems. I then discussed the laws of imitation at the macro level, including how ideas spread through logical alliances or conflict in logical duels. These dynamics shape which innovations persist and which dissolve—insights that will become important for determining which contributions to an AI system meaningfully define its function and form.

I then presented Tarde's extra-logical laws of imitation, including his view that imitation proceeds from within to without (i.e., first mentally, then physically or verbally), that prestige or perceived superiority often guides imitation, and that innovations vary in temporal durability, with some taking hold as long-standing customs and others fading as ephemeral fashions. These distinctions—especially between fashions and customs—help distinguish more deeply entrenched features of a socio-digital institution from more peripheral ones. Lastly, I turned to the topic of invention, explaining that inventions are generally a combination of two or more pre-existing imitations. Although Tarde suggests that every imitation modifies its source to some degree, true innovation for him involves a momentary disruption—what he calls a psychological awakening from the imitative state—followed by novel recombination.

In Chapter II, I extended Tarde's account of imitation and invention to the micro-level of monads—entities that include not just individuals, but any locus where beliefs and desires intersect. This monadic view is especially relevant for understanding artificial agents, which I approach not as unified actors but as temporary assemblages of beliefs and desires shaped by external influences. Tarde's notion that monads are constituted by rays of imitation—ongoing flows of belief-desire transmissions—will be key to the argument that AI systems are best understood as socio-digital institutions formed through the cumulative influence of various contributors, rather than as bounded agents.

Also important is Tarde's idea that beliefs either harmonize or conflict with existing configurations, forming alliances or triggering duels. This helps clarify how (attempted) contributions to AI system development or deployment—e.g., research, architectural tweaks, optimization targets, or use-contexts—either get integrated and reshape the system's evolving structure, or are disregarded, with important consequences for the successful contributors in terms of potential liability. It is important to bear in mind, as I established in Chapter II, that the monad is (almost) nothing above and beyond the beliefs and desires that intersect at a particular node in a greater network of beliefs and desires. Referring to a monad as if it were an agent is no more than a mental crutch we use to describe changes driven by the belief-desire pair itself. This is helpful to remember when the law has to sever the chain of causality when determining liability, as we will see.

In the absence of an entity making decisions regarding alliances and duels it may seem hard to understand how these changes or their rejection take place. However, when a billiard ball rolls towards another, it either does or doesn't have the force to move the resting one. There is no adjudicator needed that solves the matter. This is how I understand Tarde. It is the force of the

incoming and existing beliefs and desires and the countervailing forces of existing beliefs and desires that determine whether they form an alliance among them or initiate a duel.

The non-logical laws of imitation examined in Chapter II are less relevant in the context of AI agency and liability, apart from the distinction between fashions and customs, on the level of monads interpreted as more or less persistent beliefs and desires. Here, these insights explain that certain inventions gain lasting traction in the development of AI while others don't. Somewhat more important is the investigation of what dominance means. I identified dominance as consciousness and the ability to effect change. An important point was that even non-dominant or less conscious monads play a crucial role in innovation. They provide the building blocks that dominant monads more or less ingeniously assemble into a new innovation. Secondly, these non-dominant monads propagate new ideas that would otherwise not attain dominant status. These aspects of Tarde's theory show how a potentially vast number of possible contributors to AI system development and deployment as well as use could be considered responsible for ensuing harm, something to which the law must react.

Chapters III, IV, and V engaged more deeply with Tarde's monadology, drawing a close comparison to Leibniz's. I omit a review of their differences and similarities and for the purpose of this summary focus on the additional insights these chapters provide on monadic agency as is relevant for modeling AI agency and distributed attribution in the current chapter. We learn from *M&S* that agency in Tarde's framework follows from possession, a concept that introduces a profound departure from the unconditional isolation of Leibniz's monads. Tarde redescribes the rays of imitation that I discussed in Chapters I and II as relationships of possession among monads, claiming that the foundational concept underlying reality is not being but possession, a richer concept that immediately requires not one being but two and in addition the relationship

between them, which in fact takes metaphysical priority over the two beings, which are nothing but the many relations by which they are connected to others like themselves. This emphasis on possession over static identity informs my later argument that AI agency and responsibility must be conceptualized through influence and network relations, not discrete actorhood.

In Chapter IV, I further developed Tarde's notion of agency by highlighting the internally goal-directed nature of monadic activity: desire. In Tarde's view, desire is always directed at propagating or realizing belief. This coupling of belief and desire constitutes not only the contents of a monad but also the directional force behind its actions. This internal dynamic will become important in what follows, as it offers a distinctive basis for thinking about agency of AI systems.

This mode of possession defines the way in which social and physical realities are constituted and dissolves individuals and societies on the micro-level, denying them their traditionally ascribed stability. Instead, diversity and change take center stage. Tarde argues that if unity were a requirement for reality, nothing would ever happen. At the heart of everything must be an original or primordial multiplicity which his metaphysics accounts for. Taking over Leibniz's idea of infinite division and adding, though in a way against which Leibniz would presumably vehemently protest, constant interaction among monads, we get a lively network of activity with each node part of countless societies to which they only partially belong through the belief that they share with the other nodes forming that particular society. This network vision of agency grounds my claim that AI systems must be seen as socio-digital institutions whose composition includes any actors whose beliefs and design decisions are imitated within the system.

We have also seen that each node, or monad, is more complex than the society it forms together with others. Society thus becomes an expansive concept that applies to absolutely

everything that is composed of elements that a dominant belief captures into a temporarily coherent whole and to which belief they are submissive, i.e., which they imitate. Drawing inspiration from Leibniz, we are able to add to our understanding of dominance the aspect of causation and agency, which are the most crucial aspects of Leibniz's monadology for determining epistemic responsibility and explanatory hierarchy in legal contexts, as I develop in this chapter. According to Leibniz, a monad's ability to serve as the more intelligible explanation of what goes on in another monad renders the first monad more perfect and thus dominant, but at the same time Leibniz interprets this superiority as causal agency.

This perspective enriches Tarde's notion of dominance by linking it to explanatory power and causal efficacy within a network of imitation. If a monad explains another's activity more comprehensively—by integrating a greater number of beliefs and coordinating their spread—it attains a position of dominance relative to the subordinate monads whose actions it helps to render intelligible. This dynamic view of dominance allows Tarde to make sense of agency in a world where monads are in constant flux. If the dominant monad is the one responsible for coordinating movement, both in terms of physical motion and intellectual propagation, then agency is not a static attribute of one entity but a function of relational superiority in an ensemble. It is not that dominant monads actively impose their will, but rather that their structure and content provide the best framework for organizing and directing the flow of imitation. In this way, Tarde, with Leibniz's help, transforms causation from a metaphysical principle into a sociological and epistemic process where dominance is determined by the explanatory force of a belief rather than by direct mechanical influence. This becomes crucial for our current purposes when I argue that liability should track explanatory dominance—those actors whose contributions best explain the system's behavior, regardless of formal control.

With this reminder of my earlier chapters, I now discuss some key characteristics of common liability frameworks, drawing out their implicit reliance on holistic and individualistic sociological theories. This sets us up for the analysis of their shortcomings when faced with modern challenges from increasingly autonomous AI agents and the superior strength of Tarde's alternative approach when applied to this field.

2) The Implicit Social Ontology of Contemporary Liability Frameworks

By a "liability framework" I mean the set of legal doctrines, principles, and assumptions through which responsibility for harm is assigned to agents based on their actions, omissions, or relationships to other actors or objects. Today's liability frameworks implicitly rest upon a social ontology that broadly aligns with Durkheim's holistic conception of social facts but also incorporates elements of Mill's individualistic psychologism and Popper's hybrid institutional individualism. The law typically presupposes clearly delineated agents, whether human persons, corporations, or institutions, that exist as stable, autonomous entities capable of intention, action, and responsibility.[2] In this way, the law treats the normative order (the "social fact" of legal responsibility) as existing independently of individual psychological states and externally to subjective intentions, imposing obligations upon individuals and collectives alike. This implicit Durkheimian ontology provides the backdrop against which we assess and allocate liability for harm, with stable entities responding to social norms and pressures external to their own psychology or subjective interpretation.[3]

Contemporary liability frameworks also pragmatically blend Durkheimian external normativity with Millian notions of individual intent and Popperian recognition of institutional

[2] Anna Beckers and Gunther Teubner, *Three Liability Regimes for Artificial Intelligence: Algorithmic Actants, Hybrids, Crowds* (HART, 2024), 6–7.
[3] Ibid., 24.

constraints.[4] Courts and legislators frequently attribute liability based upon psychological factors such as intent or negligence, revealing traces of Mill's psychological reductionism, while simultaneously treating social institutions or external circumstances as causally relevant explanatory factors in a manner reminiscent of Popper's institutional individualism.[5] The result is an ontological ambiguity between individual agency and structural determinism, but a practical compromise between the clear external constraints of Durkheimian holism, Mill's reduction to individual psychology, and Popper's mixed, institution-sensitive individualism.

This ontological flexibility allows liability frameworks to function effectively despite their theoretical inconsistencies. Nevertheless, the rise of new actors such as autonomous AI agents and human-algorithm combinations, which are increasingly prevalent today, reveals a new issue. Neither the implicit Durkheimian assumption of stable external obligations, nor Mill's psychological individualism, nor Popper's blurred institutional individualism adequately capture the relational reality of such agency. Tarde's relational metaphysics, with its emphasis on imitation and belief propagation as fundamental explanatory concepts, challenges this implicit ontology by suggesting that entities, agency, and causation are all dynamic results of relational interaction rather than intrinsically stable states of affairs. Additionally, while a Durkheimian emergence-approach to attributing agency to AI systems might seem to invoke something out of science fiction, following Tarde we can articulate a better approach by relying on traceable relations holding among computing power, human-generated and synthetic data, and human ingenuity in algorithmic development.

[4] Ibid., 15.
[5] Ibid., 7.

Liability frameworks now face novel phenomena that render their traditional assumptions increasingly implausible and problematic.[6] Thus, for the sake of conceptual coherence, legal credibility, and pragmatic effectiveness, the law may benefit from greater attention to Tarde's insights.

3) Contemporary AI Liability Debate and the Role of Latour's Actor-Network Theory

A recent and significant contribution addressing the legal challenges posed by autonomous AI is *Three Liability Regimes for Artificial Intelligence* by Anna Beckers and Gunther Teubner. [7] The authors highlight how inadequately existing liability frameworks capture algorithmic agency, primarily due to law's traditional reliance on stable entities and clear-cut causation. To resolve this inadequacy, they propose three specially tailored liability regimes, each addressing distinct types of AI-based socio-digital institutions and their associated risks. Importantly, the authors do not consider the algorithmic autonomy that permits decision-making independently of human involvement to depend on the technical attributes of any particular AI system. Instead, they show that it is the social context and institutional embedding of AI systems that society treats as capable of autonomous agency, hence their use of the expression "socio-digital institution." This is where the discussion draws upon philosophy, specifically Bruno Latour's ANT.

Again, liability frameworks typically presume accountability to rest on clearly identifiable, stable agents, such as human individuals or corporate entities. Autonomous AI complicates this framework by blurring the lines separating active agents from passive tools. While algorithms lack autonomous intentions and other psychological states relevant for liability adjudication,

[6] Ibid.
[7] Beckers and Teubner, *Three Liability Regimes for Artificial Intelligence*.

corporations similarly lack these features yet enjoy limited legal personhood. By analogy, Beckers and Teubner propose granting a limited, context-sensitive personhood to AI systems, conceived as dynamic informational processes rather than stable, bounded individuals.

This sociological approach shifts the concept of autonomy from a purely technical perspective centered on the capabilities of AI systems, to one that acknowledges autonomy as socially attributed and context dependent. Autonomy thus understood is not an all-or-nothing property but rather exists on a spectrum determined by the observers' interpretive interactions within a particular social setting.

From a legal standpoint, Beckers and Teubner argue, autonomy need not imply sentience or consciousness; rather, the law primarily concerns itself with concrete interactions and intentional behavior pragmatically attributed by observers.[8] They add a further decisive criterion for granting legal personhood to AI, principally the capability of making decisions under uncertainty. AI must exhibit a genuine choice between alternatives leading to outcomes that we can neither fully predict nor predetermine. This third criterion is crucial because responsibility inherently requires decision-making under conditions of uncertainty. If outcomes were fully predictable or predetermined, liability would reduce to mere error correction, rendering legal accountability much less meaningful. Autonomous AI decisions under genuine uncertainty introduce substantial risks extending beyond mere computational errors, risks that can lead to unpredictable and even incomprehensible outcomes. Society may explicitly decide to let individuals bear such risks as ordinary contingencies of life. Such a decision, however, should be openly debated rather than implicitly accepted under outdated assumptions that only humans act, while machines merely execute.

[8] Ibid., 35.

In the following, I discuss the three socio-digital institutions to which these authors attribute liability, namely, AI assistants or actants, human-algorithm hybrids, and interconnected multi-agent systems. At each point I elucidate the relevance of Latour's ANT (as read by Beckers and Teubner), and I show where drawing on Tarde could improve the theory. But before turning to the distinct socio-digital institutions and the different challenges they pose to the determination of liability, I explain one overarching benefit of introducing Tarde to this conversation, which is to clarify the nature and purpose of legal fictions.

As we have seen, Tarde explicitly recognizes monads as analytical constructs, "mental crutches" as I call them, rather than metaphysically stable entities. If we follow him in his assertion that entities have no inherent stable boundaries independent of the relations that define them, any delineation of entities for the purpose of legal attribution is inherently arbitrary. Explicitly acknowledging this arbitrariness helps alleviate anxiety over determining the boundaries of agency and networks. By transparently recognizing that any legal attribution of liability is necessarily an analytical choice, that is, one reflecting relational realities rather than stable metaphysical truths, liability frameworks become conceptually more coherent, flexible, and pragmatic.

a) Actants: Vicarious Liability for Autonomous Algorithms

What these authors call "actants" are autonomous software agents that serve as assistants independent from human operators and even capable of making decisions. Current liability frameworks, which in this context rely on traditional ways in which both the law and ordinary people attribute agency, struggle with such entities. Under these traditional legal frameworks, agency relationships allow a principal to be held accountable for the actions of an agent provided that the agent acts within a legally defined scope of authority granted by the principal. The term

for this is vicarious liability. The relationship between the principal and their agent typically presupposes certain conditions: the principal must possess legal capacity, the agent must have at least a limited ability to act autonomously, and the principal must exercise some control over the agent. Accountability thus flows from the agent's authorized actions back to the principal, justified primarily through the principal's consent, control, or delegation.

In the context of AI, where it takes on the position of the agent, several risks emerge that all fall under the umbrella term of *autonomy risk*. In Becker's and Teubner's words, these risks concern the "identification of the agent, lack of understanding between human principal and algorithmic agent, reduction of institutional productivity, and deviation of algorithmic decisions from the principal's intention."[9]

AI agency law needs to be sensitive to all these risks. One should note, however, that limiting autonomy in order to avoid such risks brings its own disadvantages. Autonomy is essential in this relationship because the creative and innovative potential of AI systems can be fully realized only when they operate with sufficient independence, which would be impossible if the AI system were merely a tool used by a human principal. Thus, AI agents need to be allowed to act on behalf of their principal, not mechanically obeying their will like an inanimate tool. The law needs to strike a balance between mitigating the risks arising from the agent's deviation from the principal's intentions and the possible positive contributions that the AI agent can offer due to its potentially superior abilities.

The authors propose that an expanded version of vicarious liability is appropriate to govern the scenario of digital assistance when we treat the AI as an agent of the user, which requires us to award limited legal personhood to the AI system. Beckers and Teubner argue that if we want

[9] Ibid., 46.

to hold a principal responsible for an autonomous algorithmic agent, we must reconceptualize the very notion of agency within the law. To address this challenge, they turn to Bruno Latour's concept of actants, derived from his ANT methodology, which they think helps clarify how non-human entities like algorithms can function practically as agents, assuming roles traditionally occupied by humans or institutional actors.

As mentioned at the outset of this chapter, Latour did not get this idea from Tarde, but discovered the parallel some years after ANT's inception, leading him to declare Tarde as the precursor of this idea and able to solve some technical difficulties that had long troubled Latour. One of these is a solutions to the problem of "how [to] impute will and belief to scallops, microbes, door closers, rocks, cars and instruments when it is always you the human that does the talking."[10] Latour emphasizes that Tarde's approach forces us to abandon the traditional notion of fixed, isolated identities and instead focus on the relational properties that constitute all entities—human and non-human alike. As we have seen, according to Tarde's argument, when we analyze any monad by looking at its properties and its network of "proprietors" (other monads with which it is in relation), we end up with nothing less than the entire cosmos. This shows that trying to capture an isolated, essential identity is futile within Tarde's framework because every individual is inherently connected to and indeed exhaustively defined by its relations with others. Such identities could be posited—Leibniz does just that—but they would depend on metaphysical assumptions Tarde aims to avoid.

This rejection of essentialist identity in favor of relational constitution is crucial for ANT sociologists, and for Beckers and Teubner, because it eliminates the boundary between humans and non-humans. Instead of defining non-humans by some essential, fixed identity (like

[10] Bruno Latour, "Gabriel Tarde and the End of the Social," in *The Social in Question: New Bearings in History and the Social Sciences*, ed. Patrick Joyce (Routledge, 2002).

"physical entity" or "technology"), Tarde suggests we should understand them in terms of their properties, interactions, and capacities, or what he metaphorically calls their "souls," and which are different from, yet in effect similar to, our own.[11] As a reminder, Tarde's notion of "souls" is best understood not as a metaphysical commitment to enduring interiority, but as a rhetorical strategy to make room for internal differentiation even in non-human entities. What we conventionally call an "actor" is here reframed as a temporary intersection of relational properties with sufficient coherence to produce effects. This is how Tarde tries to account for action without reintroducing substantial agents. This may seem to go against the grain of everyday experience, where not only ourselves but also the objects and beings around us appear to persist through time. Unlike Leibnizian monads, which retain a coherent sequence of internal states and thus preserve diachronic identity, Tarde's monads do not enjoy such temporal persistence. But this is not a flaw; it is the metaphysical cost of adopting a fully relational ontology. Tarde partially addresses this through his concept of societies: although monads constantly enter and exit different assemblages, such shifts rarely occur all at once. This gradual turnover allows for a degree of apparent continuity within dynamic systems—even if that continuity is always, at bottom, relational rather than substantial. Moreover, Tarde's position is not without experiential resonance: we do observe ourselves, animals, plants, and objects fall apart, die, or deteriorate over time. Persistence, even in our own perception, often turns out to be temporary stability in the midst of ongoing transformation.

This approach dissolves the stark human/non-human divide, revealing both as strands of the same relational fabric. This shift from emphasizing isolated essences to focusing on how parts

[11] Tarde, *Monadology and Sociology*, 15.

and wholes interact provides a solution to the longstanding problem of how to attribute agency beyond the human, aligning well with Latour's own project in ANT.[12]

Beckers and Teubner do not acknowledge and likely do not know of Tarde's metaphysical ingenuity. They simply draw from Latour's contribution, which is to make explicit the conditions of non-human agency, namely, that social institutions attribute such agency in specific contexts.[13] In other words, some entities are agents because society consistently treats them as such. From this, the authors draw the conclusion that, in legal terms, the principal-agent framework can be extended to treat autonomous algorithms as vicarious agents, not because algorithms literally possess intentions or consciousness but because in certain social contexts they perform functional roles indistinguishable from those of traditional agents.

While Beckers and Teubner effectively use Latour's ANT to move beyond the traditional distinction between human and non-human agents, their engagement remains somewhat superficial. They adopt ANT primarily for its rejection of rigid boundaries between humans and non-humans, allowing AI systems to be perceived as dynamic processes—streams of information whose actions we interpret socially, as we would human interactions. However, by relying solely on ANT for this conceptual leap, Beckers and Teubner overlook the deeper metaphysical insights of Tarde's monadological sociology, insights which would significantly enhance their case.

As we have seen, Tarde's philosophy explicitly contrasts with classical sociological views like Durkheim's, which assume that social phenomena exist as wholes independently of their constituent parts. Latour himself draws from Tarde precisely because Tarde rejects such holistic emergent entities, explaining social phenomena instead through the accumulation of interconnected infinitesimal actions. On Durkheim's model, we risk understanding algorithms as

[12] Latour, "Gabriel Tarde and the End of the Social," 15.
[13] Beckers and Teubner, *Three Liability Regimes for Artificial Intelligence*, 25.

entities whose actions somehow transcend their component operations, becoming opaque wholes whose agency we cannot clearly trace or explain. Tarde, however, avoids this problem altogether by insisting that any complex behavior must be analyzed as the sum of smaller, comprehensible processes.

This point matters for our understanding of algorithmic agency since in practice algorithms function fundamentally as optimization processes, meaning they systematically pursue clearly defined goals, such as maximizing predictive accuracy or achieving efficiency in decision-making. For instance, when an algorithm recommends content online, it continually selects and prioritizes information that best matches a defined criterion, like user engagement. On a technical level, optimization simply means that the algorithm persistently makes incremental adjustments in pursuit of better outcomes as measured by a predetermined goal. We can understand these incremental adjustments—tiny computational decisions—as akin to Tarde's "elementary actions."

This is where Beckers and Teubner's ANT-inspired approach falls short. By grounding AI agency in the human interpretation of communicative acts—treating algorithms essentially as socially constituted institutions—they make AI autonomy seem largely to depend on human observers' perceptions. This perspective may be useful but it is incomplete since it overlooks the fundamental metaphysical point that agency may also arise from the internal structure of goal-directed striving within the algorithms themselves. In other words, the power to act and produce change in the world does not depend solely on external recognition; it is grounded in an entity's continuous pursuit of certain ends, what Tarde calls beliefs and desires, and what we might call algorithmic goals or optimization targets.

Therefore, adding Tarde's metaphysical insights to Beckers' and Teubner's argument provides a deeper foundation for granting AI limited legal personhood. While ANT rightly emphasizes the role of social attribution in constructing agency, Tarde helps us understand agency as potentially ontologically grounded in an entity's internal, goal-directed activity. Although Tarde does not explicitly frame this as a theory of agency, his account of desire as a dynamic, directional force striving toward maximally expended beliefs allows us to reconstruct agency in terms of persistent internal teleology. This shift clarifies that we attribute agency not only because we interpret behavior as intentional, but because some systems, like optimization algorithms, actually embody a structure of persistent striving, just as do beliefs and desires on Tarde's account. In contrast, entirely deterministic processes that do not exhibit such teleological behavior cannot, within Tarde's framework, be said to possess agency, even if society were to treat them as agents. Tarde thus gives us a principled way to distinguish between entities that merely operate and those that genuinely act. With this argument I do not propose to replace but rather to enrich Beckers' and Teubner's sociological criteria of communicative participation, intentional attribution, and decision-making under conditions of uncertainty, showing why with Tarde's metaphysics only those systems that manifest a teleological orientation toward goals (as optimization processes do) can meaningfully be said to have agency.

b) Hybrids: Enterprise Liability for Human-Machine Associations

The second socio-digital institution Beckers and Teubner examine concerns scenarios where AI systems and human actors collaborate so closely that their decision-making processes become inseparable.[14] In such contexts, conventional agency law is inadequate since it presumes a principal-agent relationship with a clear hierarchical structure and individual agency, which does

[14] Ibid., 89.

not reflect the reality of joint human-AI activity. Instead, the authors propose a form of *enterprise liability* to address these hybrid arrangements, where humans and AI systems operate in functional unison.[15]

This concept of enterprise liability differs from traditional corporate liability, where organizations are held responsible for the acts of their agents within a formal legal structure. In the case of human-AI hybrids, there is no such clear delegation of responsibility. Instead, liability arises from the emergent behavior of the human-AI ensemble itself, a socio-digital institution acting as a unified but decentralized decision-making body.

Examples of such hybrid arrangements cited by the authors include:

- Computational journalism
- Algorithmically informed collective decision-making in corporate governance
- Cyborg technologies
- AI-enhanced litigation services
- Machine-assisted translation
- Social media "shitstorms" triggered by algorithmically amplified user interactions
- Hybrid trading environments involving both human and algorithmic agents, and
- Urban traffic environments shaped jointly by human-driven and autonomous vehicles

In these cases, neither the human nor the AI operates fully independently or on behalf of the other. Instead, both contribute to a decision-making process that is only intelligible as a collective undertaking. According to the authors, this emergent, composite actor, the hybrid, should be the locus of liability attribution. Attributing liability to the hybrid itself spares the legal system from having to attribute liability to one or the other constituent in circumstances where such separation is impossible because their actions are too closely intertwined to pinpoint the actor and be sure of a causal chain linking a particular action to the harm.

The specific risk this model aims to address is what the authors call *association risk*, the risk emerging from the close, interactive co-functioning of humans and AI. As examples they point to

[15] Ibid., 99.

cases where AI systems pursue goals set by humans but do so in ways that contravene the humans' actual intentions. More subtle but equally concerning are the instances where algorithms shape human behavior in ways that obscure who is truly making a consequential decision.[16]

To render liability tractable in such settings, the authors entertain the idea of granting legal personhood to the hybrid entity itself. However, they acknowledge that legal doctrine may not yet be prepared for such a radical step. As an alternative, they advocate for *common enterprise liability*. This approach permits the law to treat the hybrid as an association capable of bearing liability, without requiring it to have legal personhood. Analogously, the law already recognizes certain informal networks, e.g., unincorporated groups with a common purpose, including, for example, all manufacturers in a particular industry, as liable entities.[17]

A practical issue then arises: How should liability be allocated among members of this association? I note briefly that, contrary to what we may expect based on the examples listed above, the members of the association are not limited to the algorithm and the humans interacting with it but rather include every organization and individual that, by means of some contractual relationship, forms part of the supply chain that creates the algorithm. I comment on this slight dissonance later. With regard to the allocation of liability among the members, one possibility is market share liability, which apportions liability based on each actor's market presence. Another is organization-based liability, where liability is distributed based on each participant's degree of control over the other corporations, e.g., their controlled subsidiaries.[18]

[16] Ibid., 96.
[17] Ibid., 102.
[18] Ibid.

However, the authors propose a different model: joint and several liability *vis à vis* the injured party. This means that any member of the association may be selected by the victim to provide full compensation. That member, in turn, may then seek recourse from other association members. This approach simplifies the burden on the injured party, who need only demonstrate that the chosen defendant was part of the association and that the hybrid's collective conduct caused the harm. There is no need to prove that the specific defendant was the direct cause of the damage.

To prevent victims from targeting marginal participants, the law may introduce a designated gatekeeper role. For example, it could identify the AI's operator or manufacturer as the default point of first recourse, ensuring a measure of procedural efficiency and fairness in claims resolution.[19]

In the second step, internal apportionment, the association participant from whom an injured party seeks compensation may redistribute the burden onto the other participants based on factors such as their degree of involvement in the invention or operation of the hybrid system. Liability shares may be calculated on a *pro rata* basis using two metrics:

1. **Network benefit**: the extent to which a participant benefitted from the hybrid's operation.
2. **Network control**: the degree to which a participant had the capacity to influence the system's behavior.

This allocation strategy incentivizes those with the greatest risk mitigation capacity to take preventive measures and secure appropriate insurance. As an aside, we should bear in mind that where participants are corporations acting through employees, liability naturally falls on the corporate entity, not the individual.

[19] Ibid., 108.

Contractual arrangements among network members attempting to predetermine or exclude liability also plays a role in determining internal liability. Courts would be tasked with reviewing these agreements for fairness, taking into account each party's benefit and control within the association.

A major concern with Beckers' and Teuber's argument arises when central participants in the hybrid do not have a formal contractual relationship with the rest of the network. This means that they would not be included in the enterprise, as the authors specify contractual relations as those forming the association.[20] Open-source model providers, for instance, may exert significant influence over the hybrid's functioning yet operate outside the association's legal and contractual perimeter. These providers are entities that develop and distribute AI models whose underlying code and architecture are made publicly accessible, allowing others to use, modify, and integrate them freely into their own systems. Whether we can draw such entities into the liability web depends on how the law interprets the concept of association and on the evolving jurisprudence around functional participation in socio-technical systems. I argue that relying on Tarde's metaphysics provides a better alternative than considering merely contractual relationships for association membership. I expand on this point after I explain how the authors rely on Latour's ANT to support their proposed framework for hybrids.

Latour, they say, redefines the concept of action by removing its reliance on human intention, framing action in a consequentialist way, meaning that we understand actions based on their outcomes rather than the intentions behind them.[21] This perspective also includes the role of non-human entities (such as technology or environment) in shaping actions, making agency a shared process rather than exclusively human. The role of humans, according to Latour, is to be

[20] Ibid., 105.
[21] Ibid., 93.

spokespersons for the non-humans, as they inherently lack communicative abilities.[22] In context, he was thinking about this in connection with scientific facts, which need researchers to assemble and translate them into words as well as bring them to bear on whatever discussion they may be relevant. ANT provides the socio-philosophical foundation for understanding these hybrid associations as collective actors whose actions result not from some singular intention but from integrated and distributed capabilities. According to Latour, these hybrids combine human communicative and intentional attributes with the computational, algorithmic capabilities of non-humans, thereby achieving a collective capacity for action.[23]

Beckers and Teubner argue that explicitly acknowledging Latourian hybrids clarifies why enterprise or organizational liability regimes are particularly suited to managing liability issues arising from hybrid interactions. Rather than attempting to disentangle the various contributions of human and algorithmic components, enterprise liability assigns responsibility to the organizational structure responsible for creating, deploying, and maintaining the hybrid. With the help of human communicative capacity, the algorithm is then capable of participating in the world as an actor.

Yet here lies a conceptual tension. In their own terms, the authors have already established that advanced AI systems can be ascribed communicative status by the institutions that make use of them,[24] i.e., such AI systems do not share the silence characteristic of Latour's non-human natural entities, like scientific facts or experimental apparatus, which require human mediation and translation into the political discourse that concerns Latour. Unlike non-communicating non-humans, algorithmic systems participate in communicative processes. Latour's *Politics of Nature*

[22] Latour, *Politics of Nature*, 64.
[23] Beckers and Teubner, *Three Liability Regimes for Artificial Intelligence*, 93.
[24] Ibid., 27.

addresses the fundamentally different scenario of non-human entities entering political deliberations through human spokespersons. In contrast, Beckers and Teubner address systems explicitly designed to interact communicatively with humans. Thus, the justification drawn from Latour—where human mediation bridges the inherent silence of natural entities—appears misapplied when considering algorithmic agents explicitly created to communicate.

Moreover, Beckers and Teubner never fundamentally question the hybrid's capacity for agency itself. Their real legal and conceptual problem is to assign clear boundaries to hybrid entities and identify pragmatic methods for allocating liability among these interconnected systems. Thus, relying on Latour's communicative spokesperson role seems not only unnecessary but also conceptually misleading insofar as it mischaracterizes the fundamentally communicative nature of algorithmic systems that, unlike Latour's silent non-human entities, are specifically designed to participate directly in communicative processes without requiring human mediation or translation.[25]

I suggest instead that Tarde's metaphysical framework provides a better philosophical foundation for this argument. As we saw, Tarde replaces a traditional ontology of identity and essence (being) with one of relational influence (having or possessing), which more accurately captures the dynamic interplay between human and algorithmic entities. Liability, viewed through Tarde's lens, naturally arises not from a questionable necessity to speak for silent algorithmic actors, but from continuous processes of mutual influence. Every participant in the hybrid possesses and is possessed by the others in varying degrees, based on their influence and contributions. This understanding recognizes algorithmic agents not as passive entities requiring

[25] That might be the reason why they do not use this terminology but only reference the relevant section in *Politics of Nature*.

human spokespersons but as relational participants directly influencing and possessing their human counterparts and vice versa.

In this way, Tarde's relational metaphysics resolves the earlier observed conceptual tension untreated in Beckers' and Teubner's model, namely, the disconnection between their narrow conception of the human-algorithm hybrid—as consisting primarily of the algorithm and a human spokesperson—and the broader network of participants they ultimately propose to hold liable, such as developers, deployers, and other actors connected through contractual relationships. In the examples they offer, such as computational journalism and corporate decision-making, the reader is led to envision a much less complex hybrid formation than the one formally defined in their liability framework.

The authors' reason for expanding beyond the immediate hybrid relationship to a broader network makes sense. They want to get at the organizations that built the AI system, as they control its functionality and are therefore able to prevent dangerous model capabilities (at least in theory). However, Beckers and Teubner explain the hybridity as consisting of the relation between the user and the AI system. If this is what forms the socio-digital institution, then it does not seem to explain why the supply chain should also form part of the association, a lapse for which the authors compensate by relying on contractual arrangements. That requires an unjustified conceptual leap from closely intertwined human-AI hybrids (such as in computational journalism) to a much wider group whose inclusion depends on contractual definitions. This becomes inconsistent if the human user is not even part of the contractual relationships, e.g., in the context of open-sourced AI models that people can download and implement without contractual terms governing their usage, or in the case of a journalist using an employer's Application Programming Interface (API) to interact with an AI system, together with which

they then form a hybrid to perform the computational journalism. Contractual relations are not readily available in these scenarios to constitute the ties that are supposed to form the association.

Tarde's metaphysics of possession enables a more coherent justification. Because Tarde regards entities not as bounded agents but as intersections in a web of relational influences, it follows that liability should include all actors who meaningfully shape an algorithm's behaviour, regardless of formal contracts. Let me explain. Rather than anchoring inclusion in formal contractual relationships, we can instead trace the causal and inventive influence exerted through the propagation of beliefs and desires. We regard the AI system as a monad, a society. It is an intersection of all the beliefs and desires that coherently come together at this point to form this socio-digital institution. Entities that meaningfully shape the system's beliefs and desires (e.g., predictive goals, model architectures, use cases, optimization pressures, deployment contexts, and user interactions) do not merely support the system externally; they are actively entwined with its interior structure. In fact, they *are* the AI system-monad. They participate in its formation through the rays of imitation they send out, which are for Tarde the very fabric of social existence. (In greater metaphysical rigor, there are, as I explained in Chapter V, no entities beyond the rays of imitation.)

The point is not that all forms of technical input or any degree of proximity to the harm imply responsibility, but rather that those which introduce influential innovations or reinforce dominant belief-desire configurations become part of the hybrid in a metaphysical, not merely contractual, sense, where the difference implies a more accurate model of the hybrid that captures the true nature of socio-technical entanglement rather than relying on the sometimes arbitrary existence of contractual relationships. Their ideas encoded in models, collection or synthetic generation of

training data, optimization targets, or interface designs permeate the system and are taken up, imitated, and operationalized by others downstream. These rays of imitation ripple through the network, structuring how the system behaves. These innovations are not inert, since they compete in logical duels, form alliances, and either persist as custom-like foundations or dissolve as fleeting fashions. Hence, participation in the association is not static. The law must pay close attention to the relevant point in time when such participation establishes association membership.

To put the point differently, the hybrid is not just the human-machine interface; it is the converging array of monads whose beliefs and desires define the system's present form. The developer who introduces a new loss function, the engineer who tweaks the model to behave more persuasively, the open-source contributor who embeds a key architectural innovation: each of these actors transmits beliefs and desires that enter into alliance or conflict within the evolving socio-digital institution. What is more, we can measure the strength of these contributions not only by their presence in the system's code but by the force of their imitation, whether others adopt, reproduce, and build upon them, providing a justification of liability shares also.

In addition, Tarde's concepts of agency and causation based on epistemic dominance further enriches the available mechanisms for determining association membership and liability. As we saw, drawing inspiration from Leibniz, Tarde argues that agency, and thus responsibility for action, is not tied to mechanical causation or simple intentionality but can instead be based on explanatory superiority: where one belief-desire configuration better explains and integrates the behavior of others we should consider the former to be the cause of the effect. Thus, in complex scenarios involving algorithm-human interactions, rather than trying to establish causal intent or direct control of a particular actor, legal frameworks could sensibly attribute liability based upon

which action by which actor (human, AI, or hybrid configuration) provides the best explanatory and organizing principle for a particular outcome. Tarde thus offers an inherently pragmatic criterion for assigning responsibility that provides more flexibility than the traditional *sine qua non* formula, which requires establishing that the harmful outcome would not have occurred "but for" the defendant's specific action or omission, thereby limiting liability strictly to conditions without which the damage could not have materialized.

Tarde thus allows us to see that it is not the organization or person that matters, but the belief-desire pair they release into the world and the degree to which that pair becomes dominant in the network. This offers a subtle but powerful redefinition of participation: one is part of the association not because of a formal contract, but because one's innovations have entered the collective constitution of the hybrid, shaping its decisions, capacities, and impacts.

Yet even Tarde's framework requires a practical criterion concretely to pinpoint someone who must pay compensation for harm and to avoid an indefinite extension of liability. Such delimitation could rest upon criteria better aligned with social reality than a bare contractual relationship, such as the degree of active control, epistemic dominance, or substantial influence over the algorithm's functional design, goals, and operations, or direct contribution to shaping its decision-making capabilities. But it could also be something like contributing to the broad use of the AI system, setting the wrong incentives as an insurance provider, and many more, allowing for the flexibility necessary to do justice to the different kinds of cases that can be expected to arise. Of course, the trade-off is that contractual relations are easier to trace and hence the determination of the association members would be more straight-forward than with the proposed approach. However, determining association membership is an issue that falls on the member that is made to pay the injured individual, as the latter will likely not select a fringe

member, but instead request compensation from a prominent member, such as the AI developer, or a gatekeeper, as Beckers and Teuber suggest. This means the burden rests on someone well-resourced and thus need not disrupt the key function of liability regimes, i.e., to compensate an injured party, while it also achieves the desired deterrence effect operating on the most relevant members.

c) Interconnected autonomous agents

The third socio-digital institution addressed by Beckers and Teubner concerns systems of distributed algorithmic action, or "crowds," in which autonomous AI systems do neither operate in isolation nor in direct interaction with humans but as part of a broader, interconnected technological ecosystem.[26] Here, harm often results not from the actions of a single actor (human, machine, or hybrid), but from the emergent effects of multiple AI systems interacting across platforms, infrastructures, and organizational boundaries. Examples the authors mention include high-frequency trading systems, complex Internet of Things (IoT) environments, and autonomous vehicle ecosystems, but social media bots trolling platforms in large numbers and smart city infrastructures would also count. In these contexts, when harm occurs there may be no single actor who has violated a duty of care, produced a defective product, or exercised insufficient control to justify liability.

This leads the authors to identify a new category of risk, which they name *interconnectivity risk*, where harm emerges from dense, system-wide interactions rather than discrete failures.[27] To address the legal vacuum this new category creates, they propose the creation of a collective compensation fund. The idea draws on legal analogies such as the United States Superfund

[26] Beckers and Teubner, *Three Liability Regimes for Artificial Intelligence*, 111.
[27] Ibid., 116.

developed in the environmental sector.[28] In this model, victims need not prove who caused the harm, only that the harm originated within the algorithmic crowd. This avoids the futility of assigning responsibility in systems where causal pathways are opaque or irreducibly complex.

The fund would be financed by participants in the AI ecosystem, e.g., by a levy for a product or a fee to enter a market. Market participants are to be delineated not by pinpointing individual actors but by identifying relevant industry sectors and their horizontal, upstream, and downstream interconnections, including how these industries position themselves in relation to customers and one another. Backup funding guaranteed by the government and supported by taxes imposed on relevant corporations or strict liability regimes for actors closest to the system may supplement the fund where *ex ante* contributions made before the harm occurs fall short. Complementary *ex post* funding would also be appropriate because after a harmful event occurs it may be easier to determine who the industry players are that had the greatest risk mitigation capability. Beckers and Teubner consider government-backed funding least preferable as they wish to avoid the complete socialization of the risk and to disincentivize private actors from building dangerous AI systems.[29]

The idea of this collective fund reflects a shift away from attributing responsibility based on fault or control and toward shared exposure and cooperation within defined industrial clusters. While these criteria overlap with those discussed earlier in the context of hybrid systems composed of contractually related providers, deployers, and distributors, the emphasis here is on systemic positioning rather than legal function.[30]

[28] Ibid., 130.
[29] Ibid., 132.
[30] Why the authors move away from tracing contractual relations to determine who participated in the creating of the algorithms in the case of hybrids is not entirely clear.

For the socio-digital institution of interconnected autonomous agents, and with collective pools as the liability framework in which to address them, Beckers and Teubner no longer rely on Latour, as we cannot plausibly personify algorithmic crowds or interpret them as collective communicative actors due to their decentralized, non-deliberative nature. However, Tarde again offers a powerful philosophical basis precisely because his metaphysics does not require personification or bounded actors at all. Instead, his relational framework, which emphasizes beliefs and desires spreading through imitation, provides an elegant conceptual foundation for addressing systemic liability in distributed algorithmic environments. From Tarde's viewpoint, algorithmic crowds are simply dense, networked intersections of relational influences. Such influences propagate throughout society, thereby allowing us to conceptualize liability not merely based on discrete causal attributions but on degrees of participation and influence within the overall relational fabric. Tarde thus furnishes an intuitive basis for establishing a compensation fund tied to systemic interaction risk, and offers a principled rationale for broader societal participation in funding such a regime.

The arguments I made in the section on hybrids for why Tarde's approach to determining association membership would be preferable over one based on contracts apply here as well, and the authors are advocating for a solution very close to Tarde's approach. Indeed, we could say that collective risk funds reflect a liability solution that is most closely aligned with Tarde's metaphysics, which supports the idea of societal co-responsibility through public funding.

As argued in the previous section, even those not formally engaged in AI development or deployment participate indirectly in the socio-technical conditions that enable them by adopting, normalizing, and reinforcing technological behaviors and expectations. In Tarde's terms, society is the medium through which innovations spread; technological systems are never external

impositions but formed by collective imitation. Understood this way, public funding via taxation is not a redistribution of someone else's liability, but a reflection of society's entanglement in the very processes that make AI possible. This reasoning would presumably still support primary funding by the corporations that are closest to the AI system and the harmful event, which duly responds to the quantitative dimension of participation.

Recall that Tarde insists that beliefs and desires are fundamentally quantitative. He characterizes them as "quantities of the soul" and maintains that their key feature is their transmissibility and intensification across individuals, enabling the formation of common beliefs and desires that structure collective life. This does not mean they are measurable in a direct or intrinsic sense—there is no psychometric scale for belief or desire—but they are measurable symbolically, through the effects they produce in the social world. Statistical phenomena—such as voting rates, consumer trends, or shifts in public discourse—are for Tarde the delayed but legible traces of the dynamic movement of belief and desire.[31]

It follows that these symbolic traces can provide useful proxies for attributing liability. Because beliefs and desires travel along rays of imitation, their influence can, in principle, be traced and analyzed by frequency, spread, strength, and proximity within the network. These metrics can serve as pragmatic indicators of systemic relevance, offering a conceptual basis for determining proportional contributions to the compensation fund—over and above formal legal relationships. What we measure is not the belief or desire as a unitary psychological state, but its social reverberation: its uptake, reinforcement, opposition, and amplification within a relational web. From a Tardean perspective, this is precisely the kind of dynamic, distributed accounting that makes a theory of diffuse liability both philosophically tenable and practically workable.

[31] Tarde, *Monadology and Sociology*, 132–34.

A case like Pizzagate illustrates how this might work in practice.[32] In that incident, a conspiracy theory falsely claiming a child trafficking ring was being run out of a Washington, D.C. pizzeria spread rapidly across social media platforms. Although no single actor or platform intended the outcome, the interaction of algorithmic recommendation systems, user amplification, content monetization strategies, and the architecture of attention economies contributed to the narrative's viral uptake. The result was a real-world event: an armed individual, misled by the faux-conspiracy, entered the restaurant intending to self-investigate. He fired his gun at a closed door, and though no one got hurt, this could have easily led to harm. No single developer, platform, or user could reasonably be held fully responsible, even though the collective architecture, comprising algorithms, content ecosystems, and user behavior, played a direct role in enabling the event.

Under the model of Beckers and Teubner, this would justify compensation through a fund contributed to by the relevant ecosystem participants, social media companies, recommendation engine providers, and content hosts, based on their structural position and capacity to mitigate similar risks. Under a Tardean lens, this justification becomes even more robust: the event resulted from the propagation and amplification of certain beliefs and desires across a tightly connected socio-technical network of human and non-human actors. In such a framework, liability tracks not only proximity to the harm, but also the measurable amplification of contagious psychological quantities. Those actors whose systems facilitated the most intense and far-reaching imitation flows would, on this account, bear the greatest responsibility for contributing to harm mitigation.

[32] Renee DiResta, *Invisible Rulers: The People Who Turn Lies into Reality* (PublicAffairs, 2024), 45.

In sum, while Beckers and Teubner offer a pragmatic approach to a new and so far incompletely understood liability in algorithmic crowds, Tarde's metaphysics would clarify why and how participation, and thus responsibility, extends across formal and informal boundaries alike, even in cases where the authors feel Latour is of no further help. Tarde's model reinforces the legitimacy of pooling mechanisms while offering a principled account of prioritizing contribution based on the greatest influence.

4) Conclusion

This chapter has explored one of the implications of the metaphysical framework developed in this thesis. By applying Tarde's relational metaphysics, centered on imitation, innovation, possession, and explanatory dominance, to contemporary questions of AI liability, I have shown how his theory can inform and refine legal reasoning in complex socio-technical contexts. As Beckers and Teubner's proposals illustrate, legal systems are already moving beyond the limits of assessing the fault or intent of traditional actors toward models of attribution that reflect the complex socio-digital institutions within which AI operates. However, these efforts often rely on piecemeal metaphysical assumptions, fairly shallow interpretations of Latour's ANT, or pragmatic analogies. By returning to Tarde, we gain not just a vocabulary for describing agency and interconnectivity, but a set of conceptual tools for grounding legal responsibility in the relational dynamics that actually constitute AI systems.

Across all three of Beckers' and Teubner's socio-digital institutions—actants, hybrids, and algorithmic crowds—Tarde's insights clarify when and why entities should be treated as agents, how responsibility can meaningfully be distributed, and why contributions to liability funds are not ethically arbitrary but metaphysically justified. Most importantly, Tarde reminds us that neither humans nor machines act alone: agency is always a matter of relations, of influence, of

imitation. If our legal frameworks are to remain responsive and just, they must come to reflect this truth. Tarde may not offer ready-made legal solutions, but his metaphysics equips us to understand and shape those solutions more wisely.

Overall, this thesis has demonstrated that Gabriel Tarde's relational metaphysics offers a valuable framework for rethinking concepts of agency and responsibility in the context of autonomous artificial intelligence. By integrating Tarde's *Laws of Imitation* with his *Monadology and Sociology*, and exploring his intellectual relationship to Leibniz's theory of monads, my argument clarifies how patterns of social coordination arise without requiring emergent collective entities. These findings contribute to the ongoing revival of Tardean thought, positioning his relational ontology as a fertile resource for contemporary discussions in social theory and legal philosophy.

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