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The Logic of Expression in Deleuze's *Expressionism in Philosophy: Spinoza*: A Strategy of Engagement

Simon Duffy

Abstract

According to the reading of Spinoza that Gilles Deleuze presents in *Expressionism in Philosophy: Spinoza*, Spinoza's philosophy should not be represented as a moment that can be simply subsumed and sublated within the dialectical progression of the history of philosophy, as it is figured by Hegel in the *Science of Logic*, but rather should be considered as providing an alternative point of view for the development of a philosophy that overcomes Hegelian idealism. Indeed, Deleuze demonstrates, by means of Spinoza, that a more complex philosophy antedates Hegel's which cannot be supplanted by it. Spinoza therefore becomes a significant figure in Deleuze's project of tracing an alternative lineage in the history of philosophy, which, by distancing itself from Hegelian idealism, culminates in the construction of a philosophy of difference. Deleuze presents Spinoza's metaphysics as determined according to a 'logic of expression', which, insofar as it contributes to the determination of a philosophy of difference, functions as an alternative to the Hegelian dialectical logic. Deleuze's project in Expressionism in Philosophy is therefore to redeploy Spinoza in order to mobilize his philosophy of difference as an alternative to the dialectical philosophy determined by the Hegelian dialectic logic.

Keywords: Deleuze; Spinoza; Hegel; logic; differential; expression

The question of whether or not one can find a dialectic operating in the *Ethics* is one of the defining problematics that Pierre Macherey, one of the most respected of contemporary Spinoza scholars in France, brings to bear on Hegel's reading of Spinoza. In *Hegel ou Spinoza*, he argues that Hegel transposes the *Ethics* by using the notions of opposition and contradiction which are evidently not those of Spinoza, 'implicitly making the dialectic, in the Hegelian sense, intervene' in the Spinozist system.[1] The simple negation that Hegel locates in the *Ethics* serves to position the philosophy of Spinoza as one moment in the linear progression of the

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history of philosophy that is determined according to the Hegelian dialectical logic.[2] Macherey considers such a logic to be 'manifestly absent' (Macherey 1979, 12) from Spinoza's work;[3] he suggests rather that 'It is Spinoza who constitutes the real alternative to the Hegelian philosophy'.[4]

What Macherey proposes is 'to rethink the dialectic, starting with Spinoza';[5] such a project would require responding to the question of whether or not a concept of 'historical contradiction free from dialectical negativity'[6] is able to be determined in relation to Spinoza. Despite not finding such a materialist dialectic operating in the *Ethics*, Macherey does nevertheless suggest a materialist dialectic as a means of repositioning, as moments of his own reading of Spinoza, what he considers to be the unresolved negativism of Hegel's Spinoza and the equally unresolved positivism of Gilles Deleuze's Spinoza. However, the characterization of Deleuze's Spinoza as an unresolved positivism risks obscuring not only the actual difference between the respective interpretations of Spinoza by Hegel and Deleuze but also, and more significantly, the logic that Deleuze deploys in *Expressionism in Philosophy* as an alternative to the Hegelian dialectical logic.[7]

Indeed, a more appropriate question in relation to Deleuze's reading of Spinoza would be what sort of dialectic is able to be found operating in the *Ethics*? Rather than determining that the traces of a logic reminiscent of a Hegelian-style dialectic, which attempts to resolve contradiction according to a logic of negation, are nowhere to be found in the *Ethics*, as Macherey effectively does in *Hegel ou Spinoza*, Deleuze purports to find instead an alternative logic actually operating in the *Ethics*. Whether the structure of this logic is referred to as dialectical or not, it is quite different from the Hegelian-style dialectical logic. Indeed, Deleuze considers the *Ethics* to contain the outline of a dialectic whose logic is that of affirmation rather than negation. In *Difference and Repetition*, Deleuze claims that:

> the long history of the distortion of the dialectic . . . culminates with Hegel and consists in substituting the labour of the negative for the play of difference and the differential. . . . The false genesis of affirmation, which takes the form of the negation of the negation and is produced by the negative, is substituted for the complementarity of the positive and the affirmative, of differential positing and the affirmation of difference.[8]

One of the projects that Deleuze undertakes in his reading of Spinoza in *Expressionism in Philosophy* is to offer a correction to this distortion by developing a logic that renews the relationality between these substituted characteristics.

The Project of Renewing the History of Philosophy

Macherey is highly critical of Deleuze's work on Spinoza, questioning whether or not it is 'consistent with the original sense of the work he purports to analyse, or does it rather misrepresent Spinoza's philosophy?'.[9] In order to respond to this kind of questioning it is necessary to be clear about the conception of the history of philosophy that is being brought to bear on both the text of the *Ethics* and on Deleuze's reading of the *Ethics* in *Expressionism in Philosophy*. If a study in the history of philosophy solely stroves 'after a faithful, correct reading, attempting merely a risk-free identical reproduction or charting of what is written in the *Ethics* as though it belonged to a realm of past thoughts',[10] and as though Spinoza's thought 'could be captured once and for all, grasped definitively in the ideological context in which he lived and died',[11] then the presupposition that there is an original sense of a work accessible only to the erudite historian of philosophy would be acceptable as unproblematic, and any problematization of this presupposition would thereby be determinable as a misrepresentation of the 'original sense of the work'.

According to this conception of the history of philosophy, one way to understand the 'importance' or 'influence' of the different figures in the history of philosophy on contemporary thought would be to determine 'the citations, the references, and the borrowings (acknowledged and unacknowledged) that bind contemporary thought to the texts of' these figures, which would thus put each of them 'in the position of a predecessor or forebear whose thought "anticipated" the concerns' of contemporary thought.[12] 'Another way', specifically in relation to Spinoza, 'would be to situate the contemporary "reception" of Spinoza in the history of Spinoza studies, as the most recent in a series of "readings" of Spinoza from the atheistic Spinoza of the seventeenth century to the pantheist Spinoza of the eighteenth and early nineteenth centuries to the monist of the twentieth century'.[13] In *Qualité et quantité dans la philosophie de Spinoza*, when Charles Ramond argues that: 'According to Deleuze, Spinoza locates, by using the notion of "intensity", "a long Scholastic tradition", of which only "scotism", without more precision, is evoked'; and that 'When Deleuze . . . declares that, in Spinoza, "modal essences are . . . *intensive parts*", he utters an assertion strictly incomprehensible within the framework of Spinozism',[14] he is critical of Deleuze from the point of view of each of these different ways of representing this particular conception of the history of philosophy. The presuppositions determinative of each of the points of view from which he is critical of Deleuze include that Deleuze doesn't establish enough of a connection between Scotus and Spinoza, that is, that there are not enough citations or references, either quoted by Deleuze or in the text of the *Ethics* itself, to justify the connection or to determine the connection as historically relevant; and that the value of an interpretation of Spinoza is determinable solely in relation to the parameters or criteria of Spinoza interpretation already established by the tradition of Spinoza studies.

Deleuze purports to find in Spinoza's work, if not specific references to Scotus, at least references to specific problems raised and developed by philosophers of the Middle Ages, in particular those problems which circulated amongst the Scholastics and were elaborated in the work of Scotus. Deleuze also argues that 'Spinoza marks a considerable progress' in relation to Scotus. What is of primary interest for Deleuze is the way Spinoza 'uses and transforms'[15] the Scotist concepts of univocity, formal distinction, and intensity; particularly the example of the intensity of illumination, with which Deleuze determines a concept of intensive quantity in Spinoza.[16] In response to the question whether or not Spinoza read Scotus, Deleuze replies that 'this is of no interest, because I am not sure at all that it is Scotus who invented this example! It is an example which can be found throughout the Middle Ages.'[17] As far as Deleuze is concerned, Scotus is the figure most representative of the Scholastic tradition, and therefore of the Scholastic concepts to which he is referring.[18]

There is, however, a different way of understanding the relation between the different figures in the history of philosophy and contemporary thought, the elaboration of which is one of the other projects undertaken by Deleuze in his reading of Spinoza in *Expressionism in Philosophy*. This project is that of renewing the history of philosophy by tracing an alternative lineage that challenges the Hegelian concept of the dialectical progression in the history of philosophy determined by the dialectical logic.

In *Difference and Repetition*, Deleuze gives a general outline of this project when he writes that 'The task of modern philosophy is to overcome the alternatives temporal / nontemporal, historical / eternal and particular / universal. Following Nietzsche we discover, as more profound than time and eternity, the untimely: philosophy is neither a philosophy of history, nor a philosophy of the eternal, but untimely, always and only untimely – that is to say, "acting counter to our time and thereby acting on our time and, let us hope, for the benefit of a time to come"'.[19] It is in this context that Deleuze raises 'the question of the utilisation of the history of philosophy'.[20] Deleuze considers each of the figures of the alternative lineage in the history of philosophy that he traces to 'bring to philosophy new means of expression'.[21] It is in *Expressionism in Philosophy*, in relation to Spinoza, that the logic of this new means of expression is explicated as a logic of expression. Rather than *Expressionism in Philosophy* providing a representation of Spinoza's metaphysics, Deleuze instead wants 'to put [Spinoza's] metaphysics in motion, in action . . . to make it act, [or to] make it carry out immediate acts'.[22] *Expressionism in Philosophy* therefore does not offer an alternative representation of the movement of the Hegelian dialectical logic but rather an alternative logic that is 'capable of affecting the mind outside of all representation', a logic capable 'of inventing vibrations, rotations, whirlings, gravitations, dances or leaps which directly touch the mind'.[23] These are the affects of the logic of expression, which is not an abstract logic that merely represents the movement of these affects, but the very logic by means of which these affects are expressed. It is in *Expressionism in Philosophy* that Deleuze charts the metaphysics of this logic, determining the mechanism by means of which it operates in Spinoza's philosophy.

The Differential Point of View of the Infinitesimal Calculus

Spinoza's role in this project is determined by differentiating Deleuze's interpretation of the geometrical example of Spinoza's Letter XII (on the problem of the infinite) from that which Hegel presents in the *Science of Logic*.[24] Both Hegel and Deleuze position the geometrical example at different stages in the early development of the differential calculus. Deleuze actually locates the differential from the differential point of view of the infinitesimal calculus in the geometrical example of Spinoza's Letter XII by implicating Leibniz's understanding of the early form of the infinitesimal calculus, whereas Hegel argues that the differential is conspicuous in Spinoza's example because of its absence.

The infinitesimal calculus consists of two branches which are inverse operations: differential calculus, which is concerned with calculating derivatives, or differential relations; and integral calculus, which is concerned with integration, or the calculation of the infinite sum of the differentials. The derivative, from the differential point of view of the infinitesimal calculus, is the quotient of two differentials, that is, a differential relation, of the type dy/dx. The differential, dy, is an infinitely small quantity, or what Deleuze describes as 'a vanishing quantity';[25] a quantity smaller than any given or giveable quantity. Therefore, as a vanishing quantity, dy, in relation to y, is, strictly speaking, equal to zero. In the same way dx, in relation to x, is, strictly speaking, equal to zero, that is, dx is the vanishing quantity of x. Given that y is a quantity of the abscissa, and that x is a quantity of the ordinate, $dy = 0$ in relation to the abscissa, and $dx = 0$ in relation to the ordinate.[26] The differential relation can therefore be written as $dy/dx = 0/0$.

However, although dy is nothing in relation to y, and dx is nothing in relation to x, dy over dx does not cancel out, that is, dy/dx is not equal to zero.[27] When the differentials are represented as being equal to zero, the relation can no longer be said to exist since the relation between two zeros is zero, that is, $0/0 = 0$; there is no relation between two things which do not exist. However, the differentials do actually exist. They exist as vanishing quantities insofar as they continue to vanish as quantities rather than having already vanished as quantities. Therefore, despite the fact that, strictly speaking, they equal zero, they are still not yet, or not quite equal to, zero. The relation between these two differentials, dy/dx, therefore does not equal zero, $dy/dx \neq 0$, despite the fact that $dy/dx = 0/0$.[28] Instead, the differential relation itself, dy/dx, subsists as a relation. 'What subsists when dy and dx cancel out under the form of vanishing quantities is the relation dy/dx itself'.[29]

Despite the fact that its terms vanish, the relation itself is real. It is here that Deleuze considers seventeenth-century logic to have made 'a fundamental leap', by determining 'a logic of relations'.[30] He argues that 'under this form of infinitesimal calculus is discovered a domain where the relations no longer depend on their terms'.[31] The concept of the infinitely small as vanishing quantities allows the determination of relations independently of their terms. 'The differential relation presents itself as the subsistence of the relation when the terms vanish'.[32] According to Deleuze, 'the terms between which the relation establishes itself are neither determined, nor determinable. Only the relation between its terms is determined'.[33] This is the logic of relations that Deleuze locates in the infinitesimal calculus of the seventeenth century, which he then mobilizes in his reading of Spinoza's Letter XII, and in his reading of Spinoza's work as a whole, particularly in relation to the physics of bodies in the second part of the *Ethics*.[34]

Deleuze argues that 'when you have a [differential] relation derived from a circle, this relation doesn't involve the circle at all but refers [rather] to what is called a tangent'.[35] A tangent is a line that touches a circle or curve at one point. The gradient of a tangent indicates the rate of change of the curve at that point, that is, the rate at which the curve changes on the y-axis relative to the x-axis, or the amount of slope of the curve at that point. The differential relation therefore serves in the determination of the gradient of the tangent to the circle or curve.

Leibniz recognized integration to be a process not only of summation, but also of the inverse transformation of differentiation, so the integral is not only the sum of differentials, but also the inverse of the differential relation. In the early nineteenth century, the process of integration as a summation was overlooked by most mathematicians in favour of determining integration, instead, as the inverse transformation of differentiation. However, the problem of integration as a process of summation from the differential point of view of the infinitesimal calculus did continue to be explored. This method was later reformulated by Augustin Cauchy (1789–1857) and Georg Riemann (1826–66) in the early 1800s, but notably after Hegel.

The object of the process of integration in general is to determine from the coefficients of the given function of the differential relation the original function from which they were derived. Put simply, given a relation between two differentials, *dy/dx*, the problem of integration is how to find a relation between the quantities themselves, *y* and *x*. This problem corresponds to the method of finding the function of a curve characterized by a given property of its tangent. The differential relation is thought of as another function which describes, at each point on an original function, the gradient of the line tangent to the curve at that point. The value of this 'gradient' indicates a specific quality of the original function; its rate of change at that point. The differential relation therefore indicates the specific qualitative nature of the original function at the different points of the curve.

The inverse process of this method is differentiation, which in general determines the differential relation as the function of the line tangent to a given curve. To put it simply, to determine the tangent of a curve at a specified point, a second point that satisfies the function of the curve is selected, and the gradient of the line that runs through both of these points is calculated. As the second point approaches the point of tangency, the gradient of the line between the two points approaches the gradient of the tangent. The gradient of the tangent is, therefore, the limit of the gradient of the line between the two points.

Deleuze contends that the maximum and minimum illustrated in Spinoza's geometrical example are suggestive of such limits. He introduces the concepts of the differential relation and limits not only into his interpretation of Letter XII, but also into his interpretation of the physics of bodies presented in the second part of the *Ethics*. So, according to Deleuze, the gradient of the tangent functions as a limit. When the relation establishes itself between infinitely small terms, it does not cancel itself out with its terms, but rather tends towards a limit. In other words, when the terms of the differential relation vanish, the relation subsists because it tends towards a limit. Since the differential relation approaches closer to its limit as the differentials decrease in size, or approach zero, the limit of the relation is represented by the relation between the infinitely small. It is in this sense that the differential relation between the infinitely small refers to something finite. Or, as Deleuze suggests, it is in the finite itself that there is the 'mutual immanence'[36] of the relation and the infinitely small.

Given that the method of integration provides a way of working back from the differential relation, the problem of integration is, therefore, how to reverse this process of differentiation. This can be solved by determining the inverse of the given differential relation according to the inverse transformation of differentiation. Or, a solution can be determined from the differential point of view of the infinitesimal calculus by considering integration as a process of summation in the form of a series, according to which, given the specific qualitative nature of a tangent at a point, the problem becomes that of finding, not just one other point determinative of the differential relation, but a sequence of points, all of which together satisfy, or generate, a curve and therefore a function in the neighbourhood of the given point of tangency, which therefore functions as the limit of the function.

Deleuze considers this to be the base of the infinitesimal calculus as understood or interpreted in the seventeenth century. The formula for the problem of the infinite that Deleuze extracts from the geometrical example of Letter XII, by means of this seventeenth-century understanding of the infinitesimal calculus, is that 'something finite consists of an infinity under a certain relation'.[37] Deleuze considers this formula to mark 'an equilibrium point, for seventeenth-century thought, between the infinite and the finite, by means of a new theory of relations'.[38] It is the logic of this theory of relations that provides a starting point for the investigation into the logic that Deleuze deploys in *Expressionism in Philosophy* and which can be traced through *Difference and Repetition* as a part of his project of constructing a philosophy of difference.

The Deleuzian Solution to the Problem of the Infinite

The Deleuzian solution offered to the problem of the infinite distinguishes itself from the Hegelian solution insofar as it is not resolved according to the dialectical logic. Deleuze's thesis is that the differential cannot be classified within the dialectical logic, which asserts the opposition of the infinite and the finite. Instead, Deleuze sets up Spinoza's example of the relation between the infinite and the finite as a rival metaphysical framework for the resolution of the problem of the infinite, a rival to that provided by Hegel in the dialectical logic. Deleuze develops the differential point of view of the infinitesimal calculus as an alternative point of view of the differential calculus to that proposed by Hegel. The distinction between the differential and integral calculus that Hegel uses to support the development of the dialectical logic opposes one to the other as inverse or contradictory operations. This distinction, which was later determined as 'the fundamental theorem of the calculus', does not necessarily have to be conceived solely as an opposition between irreducible disciplines within the differential calculus, since the operation of integration from the differential point of view of the infinitesimal calculus, according to which the process of summation in the form of series, or power series, can be used to solve differential relations by determining the original or composite functions into which they are potentially expanded, can be recovered in the differential calculus of contemporary mathematics.

The differential point of view of the infinitesimal calculus represents not a moment that can be simply sublated and subsumed within the dialectical progression of history, but rather an opening, providing an alternative trajectory for the construction of an alternative history of mathematics; it actually anticipates the return of the infinitesimal in the differential calculus, or non-standard analysis, of contemporary mathematics.[39] In *Hegel's Dialectic*, Terry Pinkard writes that 'Hegel would not be pleased with the rise of nonstandard analysis, in which the notion of the infinitesimal has made its reappearance. He would no doubt side with those philosophers and mathematicians who view this with only the greatest suspicion.'[40] According to Deleuze, the 'finitist interpretations' of the calculus given in modern set-theoretical mathematics – which Jean-Michel Salanskis considers to be congruent with what Penelope Maddy calls 'Cantorian finitism', 'namely the idea that infinite entities are so to speak seen and considered to be finite within set theory'[41] – betray the nature of the differential no less than Hegel, since they 'both fail to capture the extra-propositional or sub-representative source . . . from which calculus draws its power'.[42] Deleuze thereby establishes a historical continuity between the differential point of view of the infinitesimal calculus and modern theories of the differential calculus which effectively bypasses the methods of the differential calculus which Hegel uses in the *Science of Logic* to support the development of the dialectical logic. While Hegel is interested in using advances in mathematics to secure the development of the dialectical logic, Deleuze is interested in using mathematics not only to secure the development of an alternative logic, but in the process, to undermine the mathematical support of the Hegelian project, by historically bypassing it and determining an alternative trajectory, not only in the history of mathematics, but simultaneously in the history of philosophy.[43]

In offering an alternative solution to the problem of the infinite, or of the relation between the infinite and the finite, Deleuze draws significantly on the work of Albert Lautman, a mathematician working early in the twentieth century. In *Essai sur l'unité des sciences mathématiques dans leur développement actuel*, Lautman argues that there are 'two classic positions' as regards the relation between the continuous and the discontinuous, or the infinite and the finite. On the one hand, 'the continuous emanates from the discontinuous like the infinite from the finite, by a sort of progressive enrichment of the finite and the discontinuous',[44] and on the other hand, 'the priority of the continuous and of the infinite can equally be affirmed and it can be seen in the finite and the discontinuous either a limitation of the infinite, or an approximation of the infinite'.[45] Lautman argues that the latter position is evident 'in the mathematical discipline which is most in contact with philosophical thought . . . the authentic mathematical theorems of approximation'.[46] This position is characteristic of what Hegel determines as the Mathematical or Bad Infinite, which is the idea of the infinite from the point of view of the finite. The relation of the infinite to the finite is resolved by Hegel according to the dialectical logic insofar as the Bad Infinite, or the latter classic position, which he argues is determined by the primary negation of the finite, or of the former classic position, is itself negated and thereby subsumed in the actual or Philosophic Infinite, so that the finite realizes itself as actually infinite.

Lautman argues that 'it is possible to observe in the movement of twentieth century mathematics a third way of conceiving [the relations between] the continuous and the discontinuous, [or] the infinite and the finite . . . which sees in the infinite and the finite not the two extreme terms of a passage to be negotiated, but two distinct genres of being, each having its own structure' that is sustained by the 'relations of *imitation* or of *expression*' between them.[47] This third position is characteristic of the alternative solution offered by Deleuze to the problem of the infinite, and introduces the concept of expression between the infinite and the finite that is characteristic of the logic developed by Deleuze in *Expressionism in Philosophy* as the logic of expression. According to this third position, there is therefore 'a relation of *expression* between the discontinuous and the continuous', or between the finite and the infinite. Lautman argues that 'The structure of the first *envelops* the existence of the second and inversely the existence of the second *expresses* or *represents* the structure of the first.'[48]

The Characteristics of the Logic of Expression

According to the differential point of view of the differential calculus, the structure of the differential relation envelops the existence of the differentials, and inversely the existence of the differentials expresses the structure of the differential relation. There is therefore a 'mutual immanence' of the one in the other, and an immanence of expression of the existence of the differentials in the structure of the differential relation. It is this expressive immanence and the relationality that it implicates that Deleuze considers to be characteristic of the logic of expression. Deleuze accordingly characterizes three different elements of the logic of expression. He distinguishes between 'what expresses itself, the expression itself and what is expressed'.[49]

According to the differential point of view of the differential calculus, the structure of the differential relation would therefore be 'the expression'; the existence of each of the differentials would be 'what expresses itself'; and the difference between the existence of the second and the structure of the first that it expresses, or in which it is enveloped, would be 'what is expressed' by the relation. The logic of expression is therefore characterized by the 'immanence of expression in what expresses itself, and of what is expressed in its expression'.[50]

Deleuze then maps this logic onto Spinoza's theory of relations. According to the logic of expression, there is an immanence of expression of what is expressed (a mode's degree of power) both in what expresses itself (the complicated singular modal essence) and in its expression (the explicated finite existing mode), such that what expresses itself (the complicated singular modal essence) implicates what is expressed (the mode's degree of power) in itself, while the expression (the explicated finite existing mode) implicates what is expressed (the mode's degree of power) in other things, that is, in the composite relations of the explicated finite existing mode. It is according to this ensemble of relations that Spinoza's theory of relations is determined according to a logic of expression.

Such a logic determines a complication of intensive quantity[51] corresponding to singular modal essences (what expresses itself); an explication of extensive quantity corresponding to the mechanism through which finite modes come into existence (the expression itself); and an implication of degrees of power corresponding to the dynamism through which a singular modal essence asserts itself in existence, determining the variations of its power to act (what is expressed).[52] The explication of this logic is the defining problematic of *Expressionism in Philosophy*.

The relation between the continuous and the discontinuous, or the infinite and the finite, is determined according to what Lautman describes as 'the logical schemas which preside over the organisation of their edifices'.[53] Lautman argues that 'it is possible to recover within mathematical theories, logical Ideas incarnated in the same movement of these theories'.[54] The logical Ideas to which Lautman refers include the relations of expression between the continuous and the discontinuous, the infinite and the finite. He argues that these logical Ideas 'have no other purpose than to contribute to the illumination of logical schemas within mathematics, which are only knowable through the mathematics themselves'.[55] The project of the present paper has been to locate these 'logical Ideas' in the mathematical theory of the infinitesimal calculus from the differential point of view, in order then to demonstrate that Deleuze uses these 'logical Ideas', which are recast as philosophical concepts, to develop the logical schema of a theory of relations characteristic of a philosophy of difference, which, in *Expressionism in Philosophy*, is determined in relation to Spinoza's theory of relations as the logic of expression.

The alternative lineage in the history of mathematics is implicated in Deleuze's alternative lineage in the history of philosophy by means of a convergence between the logic of the differential from the differential point of view of the infinitesimal calculus and the logic of expression. The philosophical implications of this convergence are developed by Deleuze in *Expressionism in Philosophy* in relation to his reading of Spinoza's theory of relations in the *Ethics*. By exploiting the implications of the differential point of view of the infinitesimal calculus in his interpretation of the physics of bodies in the second part of the *Ethics*, Deleuze is able to read the system of the *Ethics* as a whole as determined according to the logic of expression. The explication of this reading strategy is what constitutes a Deleuzian reading of *Expressionism in Philosophy*. The strategy of reading the *Ethics* as determined according to the logic of expression marks not only the originality of Deleuze's interpretation of Spinoza, but also one of the points where Deleuze can be considered to depart from the Hegelian and Cartesian Spinoza familiar to scholars working in the field of Spinoza studies, by tracing an alternative lineage in the history of philosophy that expresses the convergence between Spinoza's ontology, the mathematics of Leibniz, and the metaphysics of Scotus. The Deleuzian domain of engagement with Spinoza is determined therefore by deterritorializing a fairly traditional reading of Spinoza from a particularly Cartesian and Hegelian point of view to that of a more Scotist and even Leibnizian point of view.

University of Sydney, New South Wales, Australia

Notes

1 Pierre Macherey, *Hegel ou Spinoza* (Paris: Presses Universitaires de France, 1979), p. 136.
2 See G. W. F. Hegel, *Hegel's Science of Logic*, trans. Arnold V. Miller (London: George Allen & Unwin, 1969), p. 580.
3 Macherey, *Hegel*, p. 12.
4 Ibid.
5 Ibid.
6 Eugene Holland, 'Spinoza and Marx', *Cultural Logic*, 2(1) (Fall, 1998), §32.
7 Gilles Deleuze, *Expressionism in Philosophy: Spinoza*, trans. Martin Joughin (New York: Zone Books, 1992) (henceforth *EP*).
8 Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (New York: Columbia University Press, 1994), p. 268 (henceforth *DR*).
9 Pierre Macherey, 'The Encounter with Spinoza', trans. Martin Joughin, in Martin Patton (ed.) *Deleuze: A Critical Reader* (Oxford: Blackwell, 1996), p. 142. This is one of the questions central to Macherey's problematization of Deleuze's reading of Spinoza in the 'The Encounter with Spinoza'.
10 Ibid., p. 148.
11 Warren Montag and Ted Stolze (trans. and eds), *The New Spinoza* (Minneapolis: University of Minnesota Press, 1997), p. x.
12 Ibid.
13 Ibid.
14 Charles Ramond, *Qualité et quantité dans la philosophie de Spinoza* (Paris: Presses Universitaires de France, 1995), p. 201. All citations from this text are my translations from the French.
15 *EP*, 67.
16 Ibid., 196ff.
17 G.illes Deleuze, 'Sur Spinoza', 10 March 1981. Translated by Simon Duffy. The seminars of Deleuze have been published on the internet at the following website ⟨http://www.webdeleuze.com/html/spinoza.html⟩. The seminars on

Spinoza, entitled 'Sur Spinoza', were given between 1971 and 1987 at the Université de Paris VIII Vincennes and Vincennes St-Denis.

18 For an elaboration of the relation between Scotus and the Scholastics concerning the concept of intensive quantity, see Pierre Duhem, *Le Système du monde: histoire des doctrines cosmologiques de Platon à Copernic*, Vol. 7 (Paris: Hermann, 1954), pp. 462–534.

19 *DR*, xxii. The Nietzsche citation is quoted by Deleuze from: Friedrich Nietzsche, 'On the Uses and Disadvantages of History for Life', *Untimely Meditations*, trans. R. J. Hollingdale (Cambridge: Cambridge University Press, 1983), p. 60.

20 *DR*, xxii.

21 Ibid., p. 8.

22 Ibid., p. 184.

23 Ibid.

24 Hegel, *Hegel's Science of Logic*, p. 251.

25 Gilles Deleuze, 'Sur Spinoza', 17 February 1981. Translated by Timothy S. Murphy.

26 A quantity of the abscissa, y, is a coordinate measured parallel to the x-axis, and a quantity of the ordinate, x, is a coordinate measured parallel to the y-axis, of a two-dimensional (x, y) Cartesian plane.

27 Deleuze, 'Sur Spinoza', 17 February 1981.

28 Note: $dy/dx = 0/0$ but not 0, that is, $dy/dx \neq 0$.

29 Deleuze, 'Sur Spinoza', 17 February 1981.

30 Deleuze, 'Sur Spinoza', 10 March 1981.

31 Ibid.

32 Ibid.

33 Ibid.

34 Benedict de Spinoza, *Ethics*, II, P13. Citations from the *Ethics* and from Spinoza's correspondence are from Edwin Curley, *The Collected Works of Spinoza Volume I* (New Jersey: Princeton University Press, 1985).

35 Deleuze, 'Sur Spinoza', 17 February 1981.

36 Ibid.

37 Ibid.

38 Ibid.

39 See Abraham Robinson's *Non-Standard Analysis: Studies in Logic and the Foundations of Mathematics* (Amsterdam: North-Holland, 1966); and John L. Bell's *A Primer of Infinitesimal Analysis* (New York: Cambridge University Press, 1998).

40 Terry Pinkard, *Hegel's Dialectic: The Explanation of Possibility* (Philadelphia: Temple University Press, 1988), p. 52.

41 Jean-Michel Salanskis, 'Idea and Destination', in Paul Patton (ed.) *Deleuze: A Critical Reader* (Oxford: Blackwell, 1996), p. 66.

42 See Penelope Maddy, 'Believing the Axioms', *Journal of Symbolic Logic*, 53(2) (1988), pp. 481–511.

43 Hume, Nietzsche, Bergson. Deleuze later returns to this series with a text on Leibniz.

44 Albert Lautman, *Essai sur l'unité des sciences mathématiques dans leur développement actuel* (Paris: Hermann, 1938), p. 56.

45 Ibid.

46 Ibid.

47 Ibid.

48 Albert Lautman, *Nouvelles recherches sur la structure dialectique des mathématiques* (Paris: Hermann, 1939), p. 31.

49 *EP*, 333.
50 Ibid., p. 180.
51 It is in relation to the Scotist example of the intensity of illumination that Deleuze determines a concept of intensive quantity in Spinoza. See *EP*, 196 ff.
52 *EP*, 233.
53 Lautman, *Essai*, p. 58.
54 Ibid.
55 Ibid.