

**Deleuze on Leibniz:  
Difference, Continuity, and the Calculus**

**Daniel W. Smith  
Purdue University**

Gilles Deleuze once characterized himself as a “classical” philosopher, a statement that no doubt was meant to signal his indebtedness to (and affinities with) the great philosophers of the classic period, notably Spinoza and Leibniz. Spinoza provided Deleuze with a model for a purely immanent ontology, while Leibniz offered him a way of thinking through the problems of individuation and the theory of Ideas. In both cases, however, Deleuze would take up and modify Spinoza’s and Leibniz’s thought in his own manner, such that it is impossible to say that Deleuze is a “Spinozist” or a “Leibnizian” without carefully delineating the use to which he puts each of these thinkers. What I would like to do in my talk today is to examine at least the initial outlines of Deleuze’s reading of Leibniz. Although Deleuze published a book-length study of Leibniz late in his career, entitled The Fold: Leibniz and the Baroque (1984),<sup>1</sup> his more profound (and, I believe, more important) engagement with Leibniz had already occurred in Difference and Repetition (1968) and Logic of Sense (1969).<sup>2</sup> In these earlier works, Deleuze approached Leibniz from a resolutely post-Kantian point of view, returning to Leibniz in his attempt to redefine the nature of the transcendental field. Following Salomon Maimon, Deleuze had argued that, in order for Kant’s critical philosophy to achieve its own aims, a viewpoint of internal genesis needed to be substituted for Kant’s principle of external conditioning.<sup>3</sup> “Doing this means returning to Leibniz,” Deleuze would later explain, “but on bases other than Leibniz’s. All the elements to create a genesis such as the post-Kantians demand it, all the elements are virtually in Leibniz.”<sup>4</sup> One of these other “bases” was the formulation of a pure principle of difference, which alone would be capable of freeing thought from “representation” (whether finite or infinite), and its concomitant subordination to the principle of identity. As Maimon had shown, whereas identity is the condition of possibility of thought in general, it is

difference that constitutes the genetic condition of real thought. In what follows, then, I would like to show how Deleuze in effect deduces a principle of difference from Leibniz's thought, starting with the most simple expression of the principle of identity ("A is A"), and then making its way through the principles of sufficient reason and indiscernibility, and the law of continuity (See Figure 1). What emerges from Deleuze's reading of Leibniz is, as he himself puts it, "a Leibnizian transcendental philosophy that bears on the event rather than the phenomenon, and replaces the Kantian conditioning."<sup>5</sup>

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### Four Principles in Leibniz

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#### **Principle of Identity (A is A)**

→ Principle of Non-Contradiction (A is not not-A)

→ Principle of the Excluded Middle (either A or not-A)

Reason: *ratio essendi* ("reason for being": *Why is there something rather than nothing?*)

Popular Formulation: "A thing is what it is."

Philosophical Formulation: "Every analytic proposition is true."

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#### **Principle of Sufficient Reason**

Reason: *ratio existendi* ("reason for existing": *Why is there this rather than that?*)

Popular Formulation: "Everything has a reason."

Philosophical Formulation: "Every true proposition is analytic."

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#### **Principle of Indiscernibles**

Reason: *ratio cognoscendi* ("reason for knowing")

Popular Formulation: "No two things are the same."

Philosophical Formulation: "For every concept, there is one and only one thing."

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#### **Law of Continuity**

Ratio: *ratio fiendi* ("reason for becoming")

Popular Formulation: "Nature never makes leaps."

Philosophical Formulation: "A singularity is extended over a series of ordinary points until it reaches the neighborhood of another singularity, etc."

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§ 1. The Principle of Identity. We begin with the simplest statement of the principle of identity: "A is A."

“Blue is blue,” “a triangle is a triangle,” “God is God.” Leibniz himself had already asked: do these formal expressions of the principle of identity make us think anything? Such formulae, he says, “seem to do nothing but repeat the same thing without telling us anything.”<sup>6</sup> They are certain but empty.

A more popular formulation of the principle of identity would be: “A thing is what it is.” This formula goes further than the formula “A is A” because it shows us the ontological region governed by the principle of identity: identity consists in manifesting the identity between the thing and what the thing is, what classical philosophy termed the “essence” of a thing. In Leibniz, every principle is a ratio, a “reason,” and the principle of identity can be said to be the ratio or rule of essences, the ratio essendi. It corresponds to the question, “Why is there something rather than nothing?” If there were no identity (an identity conceived as the identity of the thing and what the thing is), then there would be nothing.

But Leibniz also provides us with a more technical formulation of the principle of identity, derived from logic: “every analytic proposition is true.” What Leibniz means here is that the simple formal statement of the principle of identity (“A is A”) hides something—namely, the fact that the principle of identity is itself vectorized. There is a vector running through it, a vector that moves from the predicate to the subject. An analytic proposition is a proposition in which the subject and the predicate are identical—even though the distinction between subject and predicate remains. “A is A” is itself an analytic proposition, since the predicate A is contained in the subject A; and therefore “A is A” is true.

But to complete the detail of Leibniz’s formula, we would have to distinguish between two types of identical propositions: an analytic proposition is true either by reciprocity or by inclusion. An example of a proposition of reciprocity is “a triangle has three angles.” This is an identical proposition because the predicate (“three angles”) is the same as the subject (“triangle”) and reciprocates with the subject. The second case, a proposition of inclusion, is slightly more complex. In the proposition “a triangle has three sides” there is no identity between the subject and the predicate, yet there is a supposed logical necessity, since we cannot conceptualize a single figure having three angles without this figure also having three

sides. There is no reciprocity here, but there is a demonstrable inclusion or inherence of the predicate in the subject.

One could say that analytic propositions of reciprocity are objects of intuition, whereas analytic propositions of inclusion are the objects of a demonstration. What Leibniz calls analysis is the operation that discovers a predicate in a notion taken as a subject. If I show that a given predicate is contained in a notion, then I have done an analysis. All this is basic logic: up to this point, the Leibniz's greatness as a thinker has not yet appeared.

§ 2. Principle of Sufficient Reason. Leibniz's originality, Deleuze suggests, first emerges with his second great principle, the principle of sufficient reason, which no longer refers to the domain of essences but the domain of things that actually exist, the domain of existences. The corresponding ratio is no longer the ratio essendi but the ratio existendi, the reason for existing. The corresponding question is no longer, "Why something rather than nothing?" but rather, "Why this rather than that?" The popular expression of this principle would be: "everything has a reason." This is the great cry of rationalism, which Leibniz will attempt to push to its limit. Why does Leibniz need this second principle? Because existing things appear to be completely outside the principle of identity. The principle of identity concerns the identity of the thing and what the thing is, even if the thing itself does not exist. I know that unicorns do not exist, but I can still say what a unicorn is. So Leibniz needs a second principle to make us think existing beings. Yet how can a principle as seemingly vague as "everything has a reason" make us think existing beings?

Leibniz explains how in his technical formulation of the principle of sufficient reason, which reads: "all predication has a foundation in the nature of things." What this means is that everything that is truly predicated of a thing is necessarily included or contained in the concept of the thing. What is said or predicated of a thing? First of all, its essence, and at this level there is no difference between the principle

of identity and the principle of sufficient reason, which takes up and presumes everything acquired with the principle of identity. But Leibniz then adds something no philosopher before him had said: what is said or predicated of a thing is not only the essence of the thing, but also the totality of the affections and events that happen to or are related to or belong to the thing. For example: Caesar crossed the Rubicon. Since this is a true proposition, Leibniz will say that the predicate “crossed the Rubicon” must be contained in the concept of Caesar (not in Caesar himself, but in the concept of Caesar). “Everything has a reason” means that everything that happens to something—all its “differences”—must be contained or included for all eternity in the individual notion of a thing. “If we call an ‘event’ what happens to a thing, whether it submits to it or undertakes it, we will say that sufficient reason is what comprehends the event as one of its predicates: the concept of the thing, or its notion. ‘Predicates or events,’ says Leibniz.”<sup>7</sup>

How does Leibniz arrive at this remarkable claim? He does so, Deleuze suggests, following Couturat, by reconsidering reciprocity. The principle of identity gives us a model of truth that is certain and absolute—an analytical proposition is necessarily a true proposition—but it does not make us think anything. So Leibniz reverses the formulation of the principle of identity using the principle of reciprocity: a true proposition is necessarily an analytic proposition. The principle of sufficient reason is the reciprocal of the principle of identity, and it allows Leibniz to conquer a radically new domain, the domain of existing things.<sup>8</sup> By means of this reversal, the principle of identity forces us to think something. The formal formula of the principle of identity (“A is A”) is true because the predicate reciprocates with the subject, and Leibniz therefore applies this principle of reciprocity to the principle of identity itself. In its first formulation, however, the reciprocal of “A is A” is simply “A is A,” and in this sense, the formal formulation prevents the reversal of the identity principle. The principle of sufficient reason is produced only through a reversal of the logical formulation of the principle of identity, but this latter reversal is clearly of a different order: it does not go without saying. Justifying this reversal is the task Leibniz pursues as a philosopher, and it launches him into an infinite and perhaps impossible

undertaking. The principle of sufficient reason says not only that the notion of a subject contains everything that happens to the subject, all its difference—that is, everything that is truly predicated of the subject—but also that we should be able to demonstrate that this is the case (just as we can demonstrate that the predicate “three sides” is contained in the concept of the triangle).

Once Leibniz launches himself into the domain of the concept in this way, however, he cannot stop. At one point in the Metaphysics, Aristotle—who exerted an extremely strong influence on Leibniz—proposes an exquisite formula: at a certain point in the analysis of concepts, it is necessary to stop (anankstenai).<sup>9</sup> This is because, for Aristotle, concepts are general, not individual. Classical logic distinguishes between the order of the concept, which refers to a generality, and the order of the individual, which refers to a singularity. By nature, a concept was seen to be something that comprehends a plurality of individuals; it went without saying that the individual as such was not comprehensible by concepts. Put differently, philosophers have always considered that proper names are not concepts. At a certain point, then, the process of conceptual specification must stop: one reaches the final species, which groups together a plurality of individuals. Leibniz, however, does not heed Aristotle’s warning: he does not stop. Instead, he attempts to push the concept all the way to the level of the individual itself: in Leibniz, “Adam” and “Caesar” are concepts, and not simply proper names. The cry of sufficient reason—“Everything must have a reason”—is the problem that will propel Leibniz into an almost hallucinatory conceptual creation. “Leibniz pushes the presuppositions of classical philosophy as far as he can, down the paths of genius and delirium.”<sup>10</sup> It is never much use to raise objections, to argue against Leibniz, says Deleuze; one has to let oneself go, and follow Leibniz in his production of concepts. What then is the delirious chasm into which Leibniz plunges?

If everything I attribute with truth to a subject must be contained in the concept of the subject, then I am forced to include in the notion of the subject not only the thing I attribute to it with truth, but also the totality of the world. What is this the case? By virtue of a principle that is very different from the

principle of sufficient reason, namely, the principle of causality. The principle of sufficient reason (“everything has a reason”) is not the same thing as the principle of causality (“everything has a cause”). “Everything has a cause” means that A is caused by B, B is caused by C, and so on—a series of causes and effects that stretches to infinity. “Everything has a reason,” by contrast, means that one has to give a reason for causality itself, namely, that the relation A maintains with B must in some manner be included or comprised in the concept of A.<sup>11</sup> This is how the principle of sufficient reason goes beyond the principle of causality: the principle of causality states the necessary cause of a thing but not its sufficient reason. Sufficient reason expresses the relation of the thing with its own notion, whereas causality simply expresses the relations of the thing with something else. Sufficient reason can be stated in the following manner: for every thing, there is a concept that gives an account both of the thing and of its relations with other things, including its causes and its effects. Thus, once Leibniz says that the predicate “crossing the Rubicon” is included in the notion of Caesar, he cannot stop himself: he is forced to include the totality of the world in Caesar’s concept. This is because “crossing the Rubicon” has multiple causes and multiple effects, such as the establishment of the Roman empire; it stretches to infinity backward and forward by the double play of causes and effects. We therefore cannot say that “crossing the Rubicon” is included in the notion of Caesar without saying that the causes and effects of this event are also included in the notion of Caesar. This is no longer the concept of inherence or inclusion, but the fantastic Leibnizian concept of expression: the notion of the subject expresses the totality of the world. Each of us—you, me—in our concept expresses or contains the entirety of the world. This is the first hallucinatory Leibnizian concept that follows from the principle of sufficient reason.

A second concept follows immediately. For there is a danger lurking here for Leibniz: if each notion of the subject expresses the totality of the world, that could seem to indicate that there is only a single subject, and that individuals are mere appearances of this universal subject (a single substance à la Spinoza, or absolute Spirit à la Hegel). But Leibniz cannot follow such a path without repudiating

himself, since his entire philosophy remains fixed on the individual, and the reconciliation of the concept with the individual. To avoid this danger, Leibniz creates another new concept: each individual notion comprehends or includes the totality of the world, he says, but from a certain point of view. This marks the beginning of “perspectivist” philosophy, which would be taken up by later philosophers such as Nietzsche (who nonetheless understood perspectivism in a very different manner than Leibniz). Point of view, however, is such a common notion that one easily risks trivializing Leibniz’s conception of perspectivism. Leibniz does not say that everything is “relative” to the viewpoint of the subject: this is what Deleuze calls an “idiotic” or “banal” notion of perspectivism. It would imply that the subject is prior to the point of view, whereas in Leibniz it is precisely the opposite: in Leibniz, the point of view is not constituted by the subject, the subject is constituted by the point of view. Points of view, in other words, are the sufficient reason of subjects. The individual notion is the point of view through which the individual expresses the totality of the world.

But here again, Leibniz cannot stop. For what is it then that determines this point of view? Each of us may express the totality of the world, Leibniz tells us, but we express most of the world in an obscure and confused manner, as if it were a mere clamor, a background noise, which we perceive in the form of infinitely small perceptions. These minute perceptions are like the “differentials” of consciousness, which are not given as such to conscious perception (apperception). However, there is indeed a small, reduced, finite portion of the world that I express clearly and distinctly, and this is precisely that portion of the world that affects my body. Leibniz in this manner provides a deduction of the necessity of the body as that which occupies the point of view. I do not express clearly and distinctly the crossing of the Rubicon, since that concerns Caesar’s body; but there are other things that concern my body — a certain relation to this room, this computer, this glass of water—which I express clearly. This is how Leibniz defines a point of view: it is the portion or the region of the world expressed clearly by an individual in relation to the totality of the world, which it expresses obscurely in the form of minute

perceptions. No two individual substances occupy the same point of view on the world because none have the same clear or distinct zone of expression on the world.

We can see, then, how the problem posed by the principle of sufficient reason—everything must have a reason—leads Leibniz, as a philosopher, to create an entire sequence of concepts: The problem posed by the principle of sufficient reason thus leads Leibniz to create an entire sequence of concepts—expression, point of view, minute perceptions, and so on. This accords precisely with Deleuze’s conception of philosophy as the creation of concepts, in accordance with a specific problematic (in this case, the problem of sufficient reason).

The notion of point of view, however, will lead Leibniz into a final set of problems.. For the world, Leibniz continues, has no existence outside the points of view that express it. The world is the “expressed” thing that is common to all individual substances, but what is expressed (the world) has no existence apart from what expresses it (individuals). In other words, there is no world in itself. The difficulty Leibniz faces here is this: each of these individual notions must nonetheless express the same world. Why is this a problem for Leibniz? The principle of identity allows us to determine what is contradictory, that is, what is impossible. A square circle is a circle that is not a circle; it contravenes the principle of identity. But at the level of sufficient reason, things are more complicated. In themselves, Caesar not crossing the Rubicon and Adam not sinning are neither contradictory nor impossible. Caesar could have not crossed the Rubicon, and Adam could have not sinned, whereas a circle cannot be square. The truths governed by the principle of sufficient reason (truths of existence) are thus not of the same type as the truths governed by the principle of identity (truths of essence). But how then can Leibniz at the same time hold that everything Adam did is contained for all time in his individual concept, and that Adam the non-sinner was nonetheless possible?

Leibniz’s famous response to this problem is this: Adam the non-sinner was possible in itself, but it was impossible with rest of the actualized world. Leibniz here creates an entirely new logical

relation of impossibility, a concept that is unique to Leibniz's philosophy, and which is irreducible to impossibility or contradiction. At the level of existing things, it is not enough to say that a thing is possible in order to exist; it is also necessary to know with what it is compossible. The conclusion Leibniz draws from this notion is perhaps his most famous doctrine, one which was ridiculed by Voltaire in Candide and by the eighteenth-century in general: among the infinity of impossible worlds, God makes a calculation and chooses the "Best" of all possible worlds to pass into existence, which is *this* world, a world governed by a harmony that is "preestablished" by God. But this rational optimism implies an infinite cruelty: the best world, of course, is not necessarily the world in which suffering is the least.

§ 3. Principle of Indiscernibles. But this sets us on the path of the third principle, the principle of indiscernibles, which is the reciprocal of the principle of sufficient reason. The principle of sufficient reason says: for every thing, there is a concept that includes everything that will happen to the thing. The principle of indiscernibles says: for every concept, there is one and only one thing. The principle of indiscernibles is thus the reciprocal of the principle of sufficient reason. Unlike Leibniz's first act of reciprocity, this reciprocation is absolutely necessary. (The move from the principle of identity to the principle of sufficient reason, by contrast, was Leibniz's coup de force as a philosopher; he could undertake it only because he created the philosophical means to do so.) Banally, this means that there are no two things that are absolutely identical: no two drops of water are identical, no two leaves of a tree are identical, no two people are identical. But more profoundly, it also means—and this is what interests Deleuze—that in the final analysis every difference is a conceptual difference. If you have two things, there must be two concepts; if not, there are not two things. In other words, if you assign a difference to two things, there is necessarily a difference in their concepts. The principle of indiscernibles consists in saying that we have knowledge only by means of concepts, and this can be said to correspond to a third reason, a third ratio: ratio cognoscendi, or reason as the reason of knowing.

This principle of indiscernibles has two important consequences for Deleuze. First, as we have seen, Leibniz is the first philosopher to say that concepts are proper names, that is, that concepts are individual notions. In classical logic, by contrast, concepts are generalities which, by their very nature, cannot comprehend the singularity of the individual. But can we not say that the concept “human,” for instance, is a generality that applies to all individual humans, including both Caesar and Adam? Of course you can say that, Leibniz retorts, but only if you have blocked the analysis of the concept at a certain point, at a finite moment. But if you push the analysis, if you push the analysis of the concept to infinity, there will be a point where the concepts of Caesar and Adam are no longer the same. According to Leibniz, this is why a mother sheep can recognize its little lamb: it knows its concept, which is individual. This is also why Leibniz cannot have recourse to a universal mind: he has to remain fixed on the singularity, on the individual as such. This is Leibniz’s great originality, the formula of his perpetual refrain: substance is individual.

Second, in positing the principle of indiscernibles (“every difference is conceptual”), Leibniz is asking us to accept an enormous consequence. For there are other types of difference, apart from conceptual difference, that might allow us to distinguish between individual things. For example, numerical difference: I can fix the concept of water and then distinguish between different drops numerically: one drop, two drops, three drops; I distinguish the drops by number only, disregarding their individuality. A second type of difference: spatio-temporal difference. I have the concept of water, but I can distinguish between different drops by their spatio-temporal location (“not this drop, that drop over there”). A third type: differences of extension and movement. I can have the concept water and distinguish between drops by their extension and figure (shape and size), or by their movement (fast or slow). These are all non-conceptual differences because they allow us to distinguish between two things that nonetheless have the same concept. Once again, however, Leibniz plunges on; he appears on the scene and calmly tells us, no, these differences are pure appearances, provisional means of expressing a

difference of another nature, and this difference is always conceptual. If there are two drops of water, they do not have the same concept. Non-conceptual differences only serve to translate, in an imperfect manner, a deeper difference that is always conceptual.

It is here that we reach the crux of the matter in Deleuze's reading of Leibniz. Although no one went further than Leibniz in the exploration of sufficient reason, Leibniz nonetheless subordinated sufficient reason to the requirements of "representation": in reducing all differences to conceptual differences, Leibniz defined sufficient reason by the ability of differences to be represented or mediated in a concept. As Deleuze writes in Difference and Repetition, "According to the principle of sufficient reason, there is always one concept per particular thing. According to the reciprocal principle of the identity of indiscernibles, there is one and only one thing per concept. Together, these principles expound a theory of difference as conceptual difference, or develop the account of representation as mediation."<sup>12</sup> In Aristotle, what "blocks" the specification of the concept beyond the smallest species is the individual itself. Leibniz is able to reconcile the concept and the individual only because he gives the identity of the concept an infinite comprehension: every individual substance, or monad, envelops the infinity of predicates that constitutes the state of the world. Where the extension of the concept = 1, the comprehension of the concept =  $\infty$  (an actual infinity). It is one and the same thing to say that the concept goes to infinity (sufficient reason) and that the concept is individual (indiscernibility). In pushing the concept to the level of the individual, however, Leibniz simply rendered representation (or the concept) infinite, while still maintaining the subordination of difference to the principle of identity in the concept.

For Deleuze, it is this subordination of difference to identity is illegitimate and ungrounded. We have seen that, in Leibniz, the principle of sufficient reason is the reciprocal of the principle of identity, and that the principle of indiscernibles is in turn the reciprocal of the principle of sufficient reason. But would not the reciprocal of the reciprocal simply lead us back to the identity principle?<sup>13</sup> The fact that it does not, even in Leibniz, points to the irreducibility of the principle of sufficient reason to the principle

of identity—in other words, the fact the sufficient reason finds its ground, not in a principle of identity, but rather in a principle of difference. Deleuze's thesis is that, behind or beneath the functioning of the identical concept—even the concept rendered infinite—there lies the movement of difference and multiplicity within an Idea. “What blocks the concept,” writes Deleuze in Difference and Repetition, “is always the excess of the Idea, which constitutes the superior positivity that arrests the concept or overturns the requirements of representation.”<sup>14</sup> Indeed, Deleuze presents Difference and Repetition in its entirety as a research into the roots of sufficient reason, which is formulated in a theory of non-representational Ideas, and which ultimately finds the ground of reason to be strangely “bent” or “twisted” into the ungrounded—the “without-ground,” the *sans-fond*, as Deleuze terms it.

Now Leibniz himself nowhere explicitly formulates a theory of Ideas, at least in the sense that Deleuze gives this term (which refers to the notion of the Idea developed by Plato, and then modified by Kant and Hegel—and not the more common notion of ideas utilized by empiricists such as Hume and Locke, for whom the term refers primarily to the ideas in our head, or “mental representations”). Deleuze's reading of Leibniz, however, is resolutely post-Kantian: he rereads Leibniz from the viewpoint of a number of post-Kantian problematics—and most notably, the theory of Ideas. For Kant, Ideas were totalizing, unifying, and transcendent, whereas in the theory that Deleuze develops, Ideas of necessity must be differential, genetic, and immanent. This is perhaps the crux of Deleuze's reading of Leibniz: despite his critiques of Leibniz, and his obvious distance from many of Leibniz's presuppositions (notably his theological presuppositions), it is in Leibniz himself that Deleuze finds the key, so to speak, for his reformulation of the theory of Ideas on an immanent and differential basis. How does he do this?

§ 4. The Law of Continuity. This brings us, finally, to the law of continuity. What is the difference between truths of essence (principle of identity) and truths of existence (principles of sufficient reason and indiscernibility)? With truths of essence, says Leibniz, the analysis is finite, such that

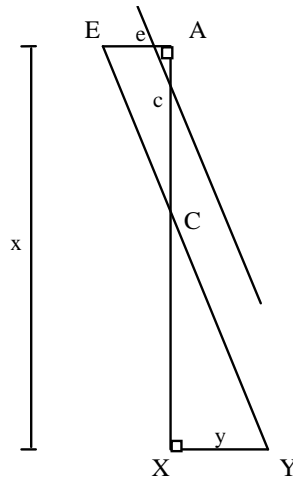
inclusion of the predicate in the subject can be demonstrated by a finite series of determinate operations (such that one can say, “q.e.d.”).<sup>15</sup> The analysis of truths of existence, by contrast, is necessarily infinite: the domain of existences is the domain of infinite analysis. Why is this the case? Because if the predicate “sinner” is contained in the concept of Adam, then if we follow the causes back and track down the effects, the entire world must be contained in the notion of Adam. When I perform the analysis, I pass from Adam the sinner to Eve the temptress, and from Eve the temptress to the evil serpent, and from the evil serpent to the forbidden fruit, and so on. Moving forward, I show that there is a direct connection between Adam’s sin and the Incarnation and Redemption by Christ. There are series that are going to begin to fit into each other across the differences of time and space. (This is the aim of Leibniz’s Theodicy: to justify God’s choice of this world, with its interlocking series.) Such an analysis is infinite because it has to pass through the entire series of elements that constitute the world, which is actually infinite; and it is an analysis because it demonstrates the inclusion of the predicate “sinner” in the individual notion “Adam.” “In the domain of existences, we cannot stop ourselves, because the series are prolongable and must be prolonged, because the inclusion is not localizable.”<sup>16</sup>

This is the Leibnizian move that matters to Deleuze: at the level of truths of existence, an infinite analysis that demonstrates the inclusion of the predicate (“sinner”) in the subject (“Adam”) does not proceed by the demonstration of an identity. What matters at the level of truths of existence is not the identity of the predicate and the subject, but rather, that one passes from one predicate to another, from the second to a third, from the third to a fourth, and so on. Put succinctly: if truths of essence are governed by identity, truths of existence, by contrast, are governed by continuity. What is a world? A world is defined by its continuity. What separates two impossible worlds? The fact that there is a discontinuity between the two worlds. What defines the best of all possible worlds, the world that God will cause to pass into existence? The fact that it realizes the maximum of continuity for a maximum of difference.

Now this notion of an infinite analysis is absolutely original with Leibniz: he invented it. It seems to go without saying, though, that we, as finite beings, are incapable of undertaking an infinite analysis: in order to situate ourselves in the domain of truths of existence, we have to wait for experience: we know through experience that Caesar crossed the Rubicon or that Adam sinned. Infinite analysis is possible for God, to be sure, whose divine understanding is without limits and infinite. But this is hardly a satisfactory answer. God may indeed be able to undertake an infinite analysis, and we're happy for God, but then we would wonder why Leibniz went to such trouble to present this whole story about analytical truths and infinite analysis if it were only to say that such an analysis is inaccessible to us as finite beings. And it's here that we begin to approach the originality of Deleuze's interpretation of Leibniz. For Leibniz, says Deleuze, indeed attempted to provide us finite humans with an artifice that is capable of undertaking a well-founded approximation of what happens in God's understanding, and this artifice is precisely the technique of the infinitesimal calculus or differential analysis. We as humans can undertake an infinite analysis thanks to the symbolism of the differential calculus. Most of the concepts that Deleuze develops in *Difference and Repetition* (published in 1968) to describe the nature of Ideas are derived from the calculus—the differential relation, singularities, multiplicities or manifolds, the virtual, the problematic, and so on. Given the limitations of time, in our deduction of concepts I would simply like to focus on the first of these concepts—the differential relation—since it is here, obviously, that we reach the point of inversion, so to speak, where Deleuze substitutes a principle of difference for a principle of identity.

§ 5. The Differential Relation. Now for Leibniz, what is at stake in an infinite analysis is not so much the fact that there is an actually existing set of infinite elements in the world. For if there are two elements—for example, Adam the sinner and Eve the temptress—then there is still a difference between these two elements. What then does it mean to say that there is a continuity between the seduction of Eve and Adam's sin (and not simply an identity)? It means that the relation between the two elements is an

infinitely small relation, or rather, that the difference between the two is a difference that tends to disappear. This is the definition of the continuum: continuity is defined as the act of a difference insofar as the difference tends to disappear. Continuity, in short, is a disappearing or vanishing difference. Between the predicate “sinner” and the subject “Adam” I will never be able to demonstrate a logical identity, but I will be able to demonstrate (and here the word demonstration obviously changes meaning) a continuity, that is, one or more vanishing differences.



From Leibniz, “Justification of the Infinitesimal Calculus by That of Ordinary Algebra,” in Loemker, pp. 545-546.

What then is a vanishing difference? In 1701, Leibniz wrote a three page text entitled “Justification of the Infinitesimal Calculus by That of Ordinary Algebra,” in which he tried to explain that, in a certain manner, the differential calculus was already functioning before it was discovered, even at the level of the most ordinary algebra.<sup>17</sup> His example is as follows (Figure 1). Leibniz draws two right triangles—CAE and CXY—that meet at their apex, at point C. Since the two triangles CAE and CXY are similar, it follows that the ratio  $e/c$  (in the top triangle) is equal to  $y/(x - c)$  (in the bottom triangle). Now, Leibniz asks us, what happens if we move the straight line EY increasingly to the right, so that it approaches

point A, always preserving the same angle at the variable point C. Even though the length of the straight lines  $c$  and  $e$  will diminish steadily, the ratio between them will remain constant. What then happens when the straight line EY passes through A itself? It is obvious that the points C and E will fall directly on A, and that the straight lines  $c$  and  $e$  will vanish, they will become equal to zero. And yet, Leibniz says, even though  $c$  and  $e$  are now equal to zero, the relation of  $c$  to  $e$  is *not* equal to zero, since it remains a perfectly determinable relation that is still equal to the relation of  $x$  to  $y$ . Put differently, when the line EY passes through A, it is not the case that the triangle CEA has “disappeared”; rather, the triangle CEA is still there, but it is only there “virtually,” since the relation  $c/e$  continues to exist even when the terms have vanished. This is what the term “vanishing difference” means: it is when the relation continues even when the terms of the relation have disappeared.

Now it is here that Deleuze reaches, and attempts to formulate, a principle of pure difference, at least insofar as it is expressed Leibniz’s formulations of the differential calculus. The differential relation can be said to be a *pure relation*, insofar as it is a relation that persists even when its terms disappear: it thus provides him with an example of what he calls the concept of *difference-in-itself*. Normally, we think of difference as a relation between two things that have a prior identity (“ $x$  is different from  $y$ ”). With the notion of the differential relation, Deleuze takes the concept of difference to a properly transcendental level: the differential relation is not only *external* to its terms (which was Bertrand Russell’s empiricist dictum), but it also *determines* its terms. In other words, difference here becomes *constitutive* of identity, that is, it becomes productive and genetic. This is what Deleuze means, in Difference and Repetition, when he says that relations such as identity, analogy, opposition, and resemblance are all secondary *effects* or results of prior relations of difference.

Now to give an example of what this theory of the differential relation means in concrete terms, I want to briefly consider the theory of perception that Leibniz himself developed in relation to it (and which Deleuze adapts for his own purposes).<sup>18</sup> Consider your situation in this room, here and now,

listening to this lecture, though your mind is occasionally wandering off elsewhere. Leibniz had noted, famously, that we often perceive things that we are not consciously aware of: you suddenly become aware of a dripping faucet at night, or the fact that the lecturer is still droning on and on, even though you tuned out a long time ago. So Leibniz suggested that our conscious perceptions are derived from, not the objects around us as such, but rather from the minute and unconscious perceptions of which they are composed, and which my conscious perception integrates. I can apprehend the noise of the ocean or the murmur of a group of people, for instance, but not necessarily the sound of each wave or the voice of each person that compose them. A conscious perception is produced when at least two of these minute and virtual perceptions—two waves, or two voices—enter into a differential relation that determines a singularity (another Deleuzian concept), or an “event,” which “excels” over the others, and becomes conscious. Every one of your conscious perceptions constitutes a constantly shifting threshold: the minute or virtual perceptions are like the obscure dust of the world, its background noise, what Maimon liked to call the “differentials of consciousness,” which themselves constitute a virtual multiplicity (a third Deleuzian concept). At the limit, Leibniz would say that we perceive the entire universe, but obscurely; and the differential relation is the precise mechanism that extracts from these minute perceptions my zone of finite clarity on the world.

In Leibniz, then, the differential calculus refers to a domain that is both mathematical and psychological, a psycho-mathematical domain: there are differentials of consciousness just as there are differentials of a curve. Several important consequences follow. Space and time here cease to be pure a priori givens (as in Kant), but are determined genetically by the ensemble or nexus of these differential relations in the subject. Similarly, objects themselves cease to be empirical givens and become the product of these relations in conscious perception. Moreover, Descartes’ principle of the “clear and distinct” ideas is broken down into two irreducible values, which can never be reunited to constitute a “natural light”: conscious perceptions are necessarily clear but confused (not distinct), while unconscious

perceptions (Ideas) are distinct but necessarily obscure (not clear). The implication is that the progress of knowledge is not an inexorable march from the confused and obscure to the clear and distinct, but rather the extraction of a confused clarity that is constantly being plunged back into the obscure.

Kant had already objected that Maimon, by returning to Leibniz, thereby reintroduced the duality between finite understanding (consciousness) and infinite understanding (the divine) that the entire Kantian critique had attempted to eliminate.<sup>19</sup> Against Kant, however, Deleuze argues that “the infinite here is only the presence of an unconscious in the finite understanding, a unthought in finite thought, a non-self in the finite self (whose presence Kant himself was forced to discover when he hollowed out the difference between a determining ego and a determinable ego). Indeed, Leibniz can be said to have developed one of the first theories of the unconscious, a theory that is very different from the one developed by Freud. The difference is that Freud conceived of unconscious in a conflictual or oppositional relationship to consciousness, and not a differential relationship. In this sense, Freud was dependent on Kant, Hegel, and their successors, who explicitly oriented the unconscious in the direction of a conflict of will, and no longer a differential of perception. The theory of the unconscious proposed by Deleuze and Guattari in Anti-Oedipus is a differential and genetic unconscious, and thus thoroughly inspired by Leibniz.<sup>20</sup>

With this, I’ll conclude my paper, somewhat abruptly. To continue, we would have to show how, starting with this principle of difference, Deleuze systematically deduces his other metaphysical concepts: singularity, multiplicity, series, disjunctive synthesis, assemblages, lines of flight, and so on. In my paper today, I’ve been largely following the exposition given by Deleuze in his 1980 seminars on Leibniz, where he starts with the principle of identity and deduces a principle of difference from it. In The Fold, Deleuze moves in the opposite direction, going from difference to identity, or, in the language of The Fold, from inflection to inclusion. But I’d like to conclude my paper by returning to the point I made at

the beginning, namely, that Deleuze reads Leibniz from a resolutely post-Kantian point of view, since this gives us a final clue on how Deleuze appropriates Leibniz for his own purposes. One of the aims of Kant's Critique of Pure Reason, in the "Transcendental Dialectic," was to show that the transcendent Ideas of God, the World, and the Self or the Soul were illusions. To read Leibniz from a post-Kant viewpoint would amount to asking: What would Leibniz's philosophy look like minus the Ideas of the God, World, and Self? That would be close to Deleuze's philosophy. (1) God would no longer be a transcendent being who compares and chooses the richest compossible world, but would instead an immanent Process (as in Whitehead) that affirms impossibilities and divergences and passes through them. (2) The World is no longer a continuous world defined by its pre-established harmony; instead, divergences, bifurcations, and impossibles must now be seen to belong to one and the same universe, a chaotic universe in which divergent series trace endlessly bifurcating paths, and give rise to violent discords and dissonances that are never resolved into a harmonic tonality: a "chaosmos," as Deleuze puts it (borrowing a word from Joyce) and no longer a world. (Leibniz could only save the "harmony" of *this* world by relegating discordances and disharmonies to *other* possible worlds—this was his theological slight of hand). (3) Finally, individuals, rather than being closed upon the compossible and convergent world they express from within, are now torn open, and kept open through the divergent series and impossible ensembles that continually pull them outside themselves. The "monadic" subject, as Deleuze puts it, becomes the "nomadic" subject. "Instead of a certain number of predicates being excluded from a thing in virtue of the identity of its concept, each 'thing' is open to the infinity of predicates through which it passes, and at the same time it loses its center, that is to say, its identity as a concept and as a self."<sup>21</sup> The Leibnizian notion of closure is replaced by the Deleuzian notion of capture. In the end, in other words, Deleuze does with Leibniz what he does with every figure in the history of philosophy: through an extraordinarily careful conceptual reading, Deleuze ultimately makes use of Leibniz's philosophy and Leibniz's concepts in the pursuit of his own philosophical aims.



## ENDNOTES

<sup>1</sup> Gilles Deleuze, The Fold: Leibniz and the Baroque, trans. Tom Conley (Minneapolis: University of Minnesota Press, 1993). References to the original French edition, Le Pli: Leibniz et le Baroque (Paris: Minuit, 1988) are also included.

<sup>2</sup> Gilles Deleuze, Difference and Repetition, trans. Paul Patton (New York: Columbia University Press, 1994); Logic of Sense, trans. Mark Lester with Charles Stivale; ed. Constantin Boundas (New York: Columbia University Press, 1990)

<sup>3</sup> For a discussion of Deleuze's relation to Maimon and the post-Kantian tradition, see my "Deleuze, Hegel, and the Post-Kantian Tradition," in Philosophy Today (Supplement 2001), ISSN 0031-8256, pp. 126-138.

<sup>4</sup> Deleuze, seminar of 20 May 1980. Deleuze's seminars on Leibniz can be found on-line at <<http://www.webdeleuze.fr>>, transcribed by Richard Pinhas and translated into English by Charles Stivale. I follow closely the conceptual deduction Deleuze presents in his 1980 seminars.

<sup>5</sup> Deleuze, Fold, p. 122/Pli, p. 163.

<sup>6</sup> Gottfried Wilhelm Leibniz, New Essays on Human Understanding, 2d ed., ed. Peter Remnant and Jonathan Bennett (Cambridge: Cambridge University Press, 1997), p. 361.

<sup>7</sup> Deleuze, Fold, p. 41/Pli, p. 55, translation modified.

<sup>8</sup> See Louis Couturat, "On Leibniz's Metaphysics," in Leibniz: A Collection of Critical Essays, ed. Harry G. Frankfurt (Garden City, N.Y.: Anchor Books, 1972), pp. 19-45. "The principle of identity states: every identity (analytic) proposition is true. The principle of reason affirms, on the contrary: every true proposition is an identity (analytic)" (p. 22).

<sup>9</sup> See Aristotle, Metaphysics, Book 2, Chapter 2, 994b24, in The Basic Works of Aristotle, ed. Richard McKeon (New York: Random House, 1941), p. 714.

<sup>10</sup> Deleuze, seminar of 20 May 1980.

<sup>11</sup> See Benson Mates, The Philosophy of Leibniz: Metaphysics and Language (Oxford: Oxford University Press, 1986), p. 157: "To discover the reason for the truth of the essential proposition 'A is B' is to analyze the concept A far enough to reveal the concept B as contained in it." Deleuze, however, would disagree with Mates's statement that Leibniz "appears to use the terms 'reason' and 'cause' interchangeably" (p. 158).

<sup>12</sup> Deleuze, Difference and Repetition, p. 12. On the relation of difference and repetition in the classical theory of the concept, see Difference and Repetition, p. 288: difference is always inscribed within the identity of the concept in general, and repetition is defined as a difference without a concept, that is, in terms of the numerically distinct exemplars or individuals that are subsumed under the generality of the concept ( $x^1, x^2, x^3, \dots, x^n$ ), and which block further conceptual specification

<sup>13</sup> Deleuze, seminar of 6 May 1980.

<sup>14</sup> Deleuze, Difference and Repetition, p. 289.

<sup>15</sup> However, Deleuze will argue, against Leibniz himself, that the analysis of essences must itself be infinite, since it is inseparable from the infinity of God. See Fold, p. 42/Pli, pp. 56-57.

<sup>16</sup> Deleuze, Fold, p. 51/Pli, p. 69, translation modified.

<sup>17</sup> Gottfried Wilhelm Leibniz, "Justification of the Infinitesimal Calculus by That of Ordinary Algebra," in Philosophical Papers and Letters, 2d ed., ed. Leroy E. Loemker (Dordrecht, Holland: D. Reidel, 1956), pp. 545-546.

<sup>18</sup> Deleuze analyzes this theory in an important chapter entitled "Perception in the Folds," in Fold, pp. 85-99/Pli, pp. 113-132.

<sup>19</sup> Immanuel Kant, letter to Marcus Herz, 26 May 1789, in Immanuel Kant: Philosophical Correspondence, 1759-99, ed. Arnulf Zweig (Chicago: University of Chicago Press, 1967), pp. 150-156.

<sup>20</sup> Gilles Deleuze and Félix Guattari, Anti-Oedipus, trans. Robert Hurley, Mark Seem, and Helen R. Lane (New York: Viking, 1977). See also Difference and Repetition, pp. 106-108, which contain Deleuze's most explicit

advocation of a differential unconscious (Leibniz, Fechner) over a conflictual unconscious (Freud).

<sup>21</sup> Logic of Sense, p. 174, translation modified.