

**Gilles Deleuze**

**Seminar on Leibniz and the Baroque – Principles and Freedom**

**Lecture 12, 10 March 1987: Principles and Freedom (7) -- The Event & Whitehead**

**Initial translation by WebDeleuze; augmented translation and transcription,  
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**Part 1**

Let's get to work (*On travaille*). The last time, I began a kind of overview or conclusion about the transformation that Leibniz brought about in the notion of substance. If you would allow me to leave that aside, I can come back to it later especially since it was hardly begun. I feel the need to leave it aside because, as I announced to you, I need help not this time about mathematics, but more about certain problems of physics. And since Isabelle Stengers is here today, and won't be here in the coming weeks, I need to benefit from her presence, and this for two reasons: these problems concern Leibniz very closely and she knows him, and also because these problems equally concern the author who I've mentioned from the start of the year that I have wanted to discuss, specifically Whitehead. So you can consider that our meeting today is fully situated within our research on Leibniz, but also bears on Whitehead and his relations with Leibniz.

You know, the Greeks had a great word to indicate, in the neo-Platonic school; there was a leader of the school, and he succeeded the preceding leader, and they had a word to designate the chief successor, it was "the diadoche", the diadoche.<sup>2</sup> If we imagine the Leibnizian school, Whitehead is the great diadoche, but at the same time, he renews everything. It's a philosophy... Hence my need – and why I so need to speak about this author whose dates are relatively old, 1861-1947, since he died at an advanced age. This [need] is because he belongs to these authors, to these very great philosophers who have been smothered, as if assassinated.

What does that mean, assassinated? It means that on occasion, schools of thought arise that establish... In some ways, as regards the problem of thinkers, there are two dangers: there are all the Stalins you might want, [all] the Hitlers that you might want, in relation to whom thinkers have but one choice, or two choices, or both of them together: resistance or exile. But there is something else that happens sometimes, inside of thought, which is the rise of strange doctrines that get established, that take on a veritable power there where power resides in this domain, that is in universities, and that establish a kind of tribunal, an intellectual tribunal of a special kind, and behind them, or under them, nothing more can grow. -- You really should turn off the recording devices because I am speaking quite freely. [*Laughter*] I will never write what I am saying, so I would like to be able to say: "I never said that". [*Laughter*] In this sense, I am accusing British analytic philosophy of having destroyed everything of what was rich within thought, and I accuse Wittgenstein of having assassinated Whitehead, of having reduced Russell, his master, to a kind of essayist no longer daring to discuss logic. All of that was awful and is still

going on. France was spared this, but we have our analytic philosophers; yet France was spared because it went through trials that were much worse. Well, this is just to say that everything is going badly.

So, what I mean is that nothing in the domain of thought ever dies a natural death, really. This British and American thought, before the war [WW II], was extraordinarily rich, full of richness, with authors that people now have gotten used to treating as if they were nothing more than, as if they were rather mentally feeble (*débile*), like William James. William James was an astounding genius. He was in philosophy exactly what his brother was for the novel. For anyone looking for a doctoral thesis topic, I once again tremble that there has never to my knowledge been a serious study of the two James brothers and their relations. Anyway, William James is something astonishing, astonishing. And then there is Whitehead, and there was another, an Australian, the only Australian philosopher, a very great philosopher, [Samuel] Alexander.

So what happened? Today, it seems to me that Whitehead is read by a handful of admirers and another handful of specialists. After all, Bergson as well was..., I don't know. We cannot say that all of that was very serious. In 1903, Whitehead was in training as a mathematician, and with [Bertrand] Russell he wrote the *Principia mathematicae*, which are at the base of modern formalism and modern logic. These *Principia mathematicae* that will engender Wittgenstein [sic] constitute a common, dramatic process. Ok, it matters little, I think Whitehead is British, but I get that wrong each time, and then afterward he settled in America around 1920-23.

So the *Principia mathematicae* with Russell was a great book of logic. *The Concept of Nature*, not translated into French, in 1920; *Science and the Modern World*, one of the rare books by Whitehead translated into French, very beautiful, very, very beautiful. There was another, but it doesn't give any idea of what Whitehead is. *Science and the Modern World* is very important, very beautiful, 1926, probably unfindable.<sup>3</sup> His great book from 1929 [is] *Process and Reality*; 1933, *Adventures of Ideas*. [Pause]

My goal is therefore two-fold here: I want you to feel the grandeur of this thinking in itself, and at the same time that you grasp the link with Leibniz's thinking, and henceforth, how literally Whitehead risks bringing to us a fundamental enlightenment about Leibniz. [Pause] There is no problem with Whitehead's knowledge of Leibniz. He is impregnated by Leibniz, and like Leibniz, he was a mathematician, a philosopher, and a physicist. Given that every philosophy tried to put something into question, what does Whitehead put into question? He puts into question the problem of what is called the categorial scheme. The categorial scheme is what? He tells us, generally, that the categorial scheme of classical thought is: subject-attribute, substance-attribute.

And it is less a question of substance, which you can understand in so many ways. What is important is not to ask if things are substances. The real question is that of the attribute, but in what sense? Precisely, must substance be thought as a function of an attribute, or must it be thought as a function of something else? In other words, if substance is the subject of a predicate, or of predicates, of multiple predicates, is the predicate reducible

to an attribute, an attribute like “the sky is blue”? [Pause] You will tell me that it’s not a fundamentally new problem, but it’s new in a particular way, the cry of Whitehead, the cry that reverberates in all his work: no, the predicate is irreducible to any attribute. And why? Because the predicate is event. The fundamental notion is going to be that of event.

And I think that it’s for the third time in the history of philosophy that this cry reverberates, and without doubt, each time it did so in a different way: Everything is event. You will tell me, no, everything is not event since the event is the predicate. For the moment, let’s say: everything is event since the subject is perhaps an adventure that only arises from the event. [Pause] Is there a subject whose birth is not event?

Everything is event. I am going to try to say it quickly. The first time, that [the cry] reverberated with the Stoics, and they were opposed to Aristotle precisely in the Aristotelian enterprise of defining substance by the attribute. And they [the Stoics] maintained what must be called a “mannerism” [Pause] since to the notion of attribute, they opposed the manner of being. Being how, how to be. The attribute is what the thing is, but the how of the thing, the manner of being, that is something else entirely. And the Stoics created the first great theory of the event. And without doubt, there was a filiation (*suite*) in the logics of the Middle Ages; one can locate the continuation of Stoic traditions, but one had to wait a very long time for this second cry, this kind of cry to reverberate anew: everything is event!

That is what I have tried to show from the start, namely it’s Leibniz, and there is no worse misunderstanding... I mean, I can understand it as a given, even if you don’t agree; I could very well understand that you might say, no, you’re wrong about Leibniz. But, for me, I say that the result of our earlier research is that there is no worse error about Leibniz than to understand the inclusion of the predicate in the subject as if the predicate were an attribute. And far from the predicate being an attribute, Leibniz continually denies that the predicate is an attribute. For him, the predicate is a relation, or as he says it precisely in the *Metaphysical Discourse*: Event, predicate or event, “or”, it cannot be stated better, as he said it in the *Metaphysical Discourse*. So it seems to me particularly stupid to wonder how Leibniz can take relations into account once we agree that he places the predicate in the subject. Not only does he take relations into account, he has no difficulty taking relations into account for the simple reason that, for him, what he calls predicate is the relation, it’s the event. [Pause]

We already began to see a bit how he took the relation into account, but we are leaving that aside. We can well expect that this causes him no problems, a theory of relations. It is only a problem from the perspective of a false Leibniz for whom the reader would believe that the predicate, for Leibniz, is an attribute. In that case, one could ask, in fact, how can a relation be included in the subject. But if what is included in the subject are events, and by definition, as he says it very well, events are relations (*rappports*) with existence. And there, we have to take seriously the word *rappport*. [Pause] Everything is event, at least all predicates are events. [Pause]

And there, for the third time, the cry reverberates with Whitehead: Everything is event. Everything is event, yes, including the Great Pyramid, says Whitehead. Even from the perspective of style, he's quite Leibnizian, even the Great Pyramid is an event. You understand? What does that mean? Generally, we consider an event as a category of very special things, for example, I go out into the street and get run over by a bus. *[Laughter]* It's an event. But the Great Pyramid is not an event. At most, I would say, well ok, the construction of the Great Pyramid is an event, but not the Great Pyramid itself. A chair is not an event, it's a thing. Whitehead is unbelievable: the chair is an event, and not only the chair's production. The Great Pyramid is an event. It's very important to understand that this is even possible, the expression "everything is event." *[Pause]* And why? What is that? *[Pause]* In what way can the Great Pyramid be event?

You remember the examples; I'm jumping to Leibniz, and I would like to jump perpetually from one to the other. We started off from certain determinations related to Adam. He was in the garden and he sinned, he committed a sin. To sin, to commit a sin, is obviously an event; it belongs to what everyone calls "event". But the garden itself is equally an event. A flower is an event. Ok, so what? Does that mean insofar as it grows insofar as it emerges? But it never ceases to emerge, to grow. Or when it has finished growing, it never ceases to wither. It's part of the flower itself, and at each instant of its duration, I must say it's an event. And the chair? It's not because it seems to be holding itself together. The chair is an event, not only its production.

In what way is the Great Pyramid an event? It is so insofar as it has duration, for example, five minutes. Insofar as the pyramid lasts five minutes, it is an event. Insofar as it lasts five more minutes, it's another event. I can connect the two events by saying: it lasts ten minutes. Every thing, says Whitehead, is a passage of nature. If you don't laugh at my accent in English, it's, its meaning is entirely... "passage of nature", passage of nature. Let's correct a little in order to get back to Leibniz: every thing is a passage of God. This is strictly the same. Every thing is a passage of nature. The Great Pyramid is an event, and is even an infinite multiplicity of events.

What does the event consist of? Literally every thing is a dance of electrons, or every thing is a variation of an electro-magnetic field. And with that, we place a foot quite carefully into physics. But the chair as a dance of electrons is an event. *[Pause]* For example, the event which is the life of nature – it's the same thing as "the passage of nature", the "life of nature" – the event that is the life of nature in the Great Pyramid, yesterday and today. *[Pause]*

So are you already getting a sense of this? Perhaps we must foresee that there is not a single Great Pyramid, but that there are perhaps two Great Pyramids. That's what he says in the text. But we are going too quickly. For the moment, that's how it is. Ok, an event, so there are no things, there are only events, everything is event. An event is the support for an infinite number of processes, processes of subjectivation, of individuation, of rationalization. Everything you'd like. Subjects are going to be born, rationalities, individualities are going to be traced, but all of that is in the events.

So everything is event, but simply that doesn't prevent us from indeed requiring a classification of events. I suppose, for example, how must we pose the problem of freedom in terms of events? Is there a difference in nature between the events that a subject – assuming that I know what a subject is – that a subject undergoes, or that a subject brings forth? What does it mean, to cause an event (*faire événement*)? [Pause] This question, as such, the distinction of events produced by subjects and events undergone has, for example, been recently posited by... [Deleuze hesitates] a philosopher, I don't know, English or American [*in fact, American*] with the precise name [Donald] Davidson, in a book, *Essays on Actions and Events* (1980).

So, the duration of a pyramid over ten seconds is an event just as that of a particular man getting himself run over. You are events, and you aren't only events by your birth. You are events, each of us is an event. That doesn't mean that they are important. [Laughter] A breeze is an event. To think of the world as an event, you will ask me, what's the point? Well, yeh, what's the point? No point; it's just something that you might enjoy, that is, if it seems to you proper [*juste*] to proceed in this way. It's sometimes very tough, and here I'd like, since I'd like to undertake something a bit more, some general considerations on philosophy, on "what is philosophy?", you certainly sense that there are some... [Deleuze does not complete the sentence]

Philosophy has a very complex relation with national characteristics, with nationalistic characteristics. It's certainly not limited to the English, this thought, but wasn't it necessary that it passes through the English, that it comes back to us from the English, this idea of the event? We indeed need thoughts like this that create a bit of fresh air. It's been quite a long while, since Descartes, that we've held on a bit too much to the subject of the self [*moi*]. The English have always lived the *moi* as an event. For once, it's not very... [Pause] That doesn't mean, yes, that doesn't mean it's something essential. [Pause]

A concert is taking place this evening; there.<sup>4</sup> With what do I write the world? Do I write the world with "I think, therefore I am", or do I write the world with "a concert is taking place this evening"? Let's assume that a concert is taking place this evening, a concert. There's an event. Let's try to decompose it, a concert this evening. A, is "an (one)", but "an" isn't one with a capital O [One]; it's the indefinite article. [*In French, un*] Where does it come from? Is it by chance that the *Principiae mathematicae* by Russell and Whitehead already created an entire formalist, formalizing theory of "an", of the indefinite article? A concert this evening, or also, I'd say, a demonstrative pronoun, [Pause] that concert, a concert this evening, that concert of which it's a question this evening. [Pause] The event is introduced by "a, an"; what does that mean? In his analysis, Whitehead – here, I believe I'd like to be very precise – it seems to me, he defines the event by three coordinates. This "an" refers to three coordinates.<sup>5</sup> [Pause] The first is every event, this concert, this concert happening there, this concert ... [Interruption of the recording] [29:51]

## Part 2

... And it's this conjunction that constitutes the several in a "one", in an "an". Several conjugated into "an", this is a being together, or what he calls – he has really beautiful words – a concrescence.<sup>6</sup> The actual occasion is a concrescence.

A concrescence of what? A conjunction of what? At first glance, of other actual occasions. Any actual occasion arises in a world that already includes actual occasions. Behind the actual occasions, there's nothing. Actual occasions are the final paths of experience. Any actual occasion refers to other actual occasions. My concert this evening refers to concerts that preceded it. These concerts that preceded it refer to an occasion that was and that is the musical work itself that is the subject of the concert. This work in its turn refers to other actual occasions that were the state of music in that period, other works, etc. There are only actual occasions. Each actual occasion conjoins, conjugates a certain number of prior, pre-existing actual occasions.

It makes of them, we'll say, it makes of them its, says Whitehead, it makes of them its givens, data. Any actual occasion presupposes data that are preceding actual occasions. An actual occasion, therefore, is a conjugation of data, that is, pre-existing actual occasions. The emergence of a new actual occasion defines something new. The law of the event is creativity. We go from concrescence to concrescence, and creativity is the production of always new actual occasions. [Pause]

As a result, literally, we must say that actual occasions never cease being taken up as data – he says *data*, the *datum*, the *data*, the givens – actual occasions never cease being taken up as data in new actual occasions. [Pause] Each actual occasion takes, takes into itself pre-existing actual occasions. I am born: it's an actual occasion, yes. I am not born without taking as data my father and my mother, and through my father and mother, an entire line, an entire generative line. You will say, all that, this is already consciousness. Absolutely not! In the actual occasion, there is absolutely nothing that implies consciousness. These are preh[ensions]... We shall see.<sup>7</sup>

There we are. I'd say that the first aspect of the event is this conjunction [Pause] of actual occasions through which an actual occasion arises in a world in which there are already actual occasions and takes them as givens, data. [Pause] Second element: henceforth, I am asking, fine, but what is an actual occasion made of? You see, my first coordinate was the actual occasion insofar as it presupposes and always refers to other actual occasions, concrescence, the appearance always of something new, creativity. The second level is, what are the elements of the actual occasions, of *an* actual occasion, going to be? And the answer is: the elements of the actual occasion are *prehensions*. An actual occasion is an aggregate of prehensions, if only because any actual occasions in its innovation prehends pre-existing actual occasions. But you indeed sense that if [Whitehead] introduced the idea of prehension, it's in order to show clearly that no actual occasion is the passive result of actual occasions or pre-existing events. Any actual occasion insofar as it's creative, insofar as it's something new implies an active prehension of preceding events, of pre-existing actual occasions, exactly as this evening's concert is a prehension of past concerts that performed the same work.

But is this only referring to past concerts that performed the same work? In other words, if I can say that the actual occasion, which has the prehension for an element, is a conjunction of prehensions, it seems to me that there are all sorts of prehensions. My concert, my concert that mutually unfolds, prehends past concerts, but not only that. An instrument actually prehends another instrument. You will tell me, yes, but no, rather, it's the instrumentalist. What difference does that make? The instrument is an event; the instrumentalist is an event. I don't know if I am able to distinguish them for the moment. "The violin complained, the piano answered it." The violin complained, the piano answered it, two prehensions, one prehends the other. You remember? This is...? Vinteuil's music in *Remembrance of Things Past*, and I can say this about any concert at all.<sup>8</sup> [Pause] An orchestration, what is this if not a distribution of prehensions? I assign the instrument [Pause] that is going to take charge of a particular actual occasion, that is going to operate a particular prehension. And then, my concert is prehended by the public; but the instrumentalists themselves prehend the public. Here we have a system of inter-prehensions going to infinity, that is, of reciprocal prehensions. [Pause]

Fine, but what is a prehension composed of? Ok, it's the element of the actual occasion, but following what little I have said, there are several aspects of the prehension. It's not in the same way that the piano prehends the violin and that the orchestra leader prehends the orchestra and the spectator prehends the work. So what are these prehensions? Of what is a prehension composed? Are there elements of the prehension, and how many, and which ones? [Pause]

And finally, the third coordinate, [Pause] what a strange world all this is. But it's a world that has no subsistence. I mean that this is the moment, now or never, to say that all things flow, they flow, they flow, they pass, they flow. It's everywhere, everywhere. It's a dance of electrons. Everywhere it's electromagnetic variations, as much for sounds as for sight. All that, it's ... we shall see, all that; it's a system of vibrations.

A system of vibrations, fine, but what remains? All that is quite lovely. By what right can I say, ah, but it's the Great Pyramid! But for the moment, I don't even have the right to say that it's the Great Pyramid. Ah, look! It's the Great Pyramid, that is, I get up, I go out, and I say, look! It's the same, it's the Great Pyramid that I saw yesterday. Or else, I go to the concert, and I say, hey, it's the little phrase, [Pause] ah, I recognize Mozart's little phrase; ah, there's the little phrase. But how am I going to say something like that? What is there in the actual occasion that allows me to say that? Nothing! The actual occasion is a variation of field, in the name of what, I'm asking? I can say the passage of nature in the Great Pyramid, fine, but I say it once and that passes. But myself, I am not satisfied with saying that. The next day, look, it's still there, the Great Pyramid, and moreover, I'd be astounded if it weren't there. Now, that would be an event, if it were no longer there, that would be an event. That would be an actual occasion.

Fine, there's more. This note, this particular note, or else this group of notes, Vinteuil's little phrase, such as it's decomposed, isn't it a set of five notes? [*The reference is to the fictional musician in Proust's Swann's Way*] But, a single note, a *si*, the *si* by [Alban] Berg. Ah, there's Berg's *si*, there it is! Ah, there's the cry! There's Wozzeck's cry! Ten

times, a hundred times, I suppose, I've been to the concert. What makes me say, ah, this is Wozzeck's cry? What makes me say, it's a *si*? It's that note! So, literally, every, as a well-known philosopher said, yes, all that, everything flows, everything changes.<sup>9</sup>

Fine; is this a Leibnizian problem? We have the time to recall the extent to which it's a Leibnizian problem. ... The *Monadology* -- I've lost it. It's so small, the *Monadology*. [Laughter] Ah, then I've also lost the reference... Ah, no. -- Paragraph 71. [We must] attach great importance to the texts. Paragraph 71. "Some people who have misunderstood my ideas" -- so they've understood nothing! -- "Some people who have misunderstood my ideas have thought me to have implied that every soul has a mass or a portion of matter which is its own and is assigned to it forever". This is a lot; it was thought that, for Leibniz, each soul had a body. [Pause] He says, not at all. "All bodies are in a perpetual state of flux, with parts constantly coming into them and going out."<sup>10</sup>

If you will, molecules never stop changing; molecules never stop changing, but I am saying that, in a certain way, it's the same. Understand, all that seems very, very banal, but think about it. I am not saying that it's the same in the sense of a generality. I'm not saying, ah, it's a cow because it has horns. But I am saying it's the same in the smallest details. It's a question of tint, of a tint, of a color. That particular green, that green, by that painter; ah, I say, ah yes, it's his green, it's his famous green, a particular nuance placed in its very individuality, a particular set of notes that returns from concert to concert. You'll tell me, with variations; yes, with occasional variations, literally. [Pause]

But what is that? Leibniz says, well, everything changes. Here as well, on the level of actual occasion, Whitehead says, well, everything changes. Electrons that enter molecules that enter into the pyramid's composition for ten minutes, well, these are not the same as the ones that enter into the pyramid's composition ten minutes later. So, it's true, as they say, the most vulgar Heraclitus, the traditional Heraclitus, everything flows, we don't bathe twice in the same river, all that, this is what Leibniz returns to in another text that says the same thing as the one I've just quoted, in the *New Essays*: "The body is not the same beyond one moment. It's only equivalent." The body is not the same beyond one moment. It's only equivalent. "It's like a river that always is renewing its water." And yet, you say, and this is the Garonne; look, it's the Garonne. What's important is not that the river always changes its water. You told yourself, my God, it's the Garonne, a proper name, not at all a generality. You don't say, it's a river; you say, it's *the Garonne*, as you'd say, good morning, Pierre. But when you say, good morning, Pierre, the molecules to which you say good morning, they have completely changed! [Laughter] There is not one [molecule] that subsists. Well, we'd have to see. If you haven't seen him for two years, there's not a molecule that subsists. [Laughter] And you tell him, good morning, Pierre! This is crazy, in the moment. There is no Pierre, there's... It's not at all the same electromagnetic field. All that is... There's not point. We mustn't say good morning, Pierre, to this point; we must not do so.

[Leibniz] adds that, "It's like a river that always changes its water or like Theseus's ship that's always being repaired." Theseus's ship never stopped having a hole that's always being repaired, Theseus's ship that's always being repaired. Our bodies are Theseus's

ship that's always being repaired, that is, but transfusion is our normal order. We never cease being transfused. [Pause] I am letting you reflect on this painful truth, [Laughter] this is the moment. And yet I say, it's *this note*, ah, I know it, not even a set; it's the famous *si* from Berg, or it's the three or five little notes from Vinteuil's little phrase.

So there we have the third coordinate. It's what Whitehead calls eternal objects. Sense that this is rather strange because these eternal objects are at the same time... He himself compares them to the Platonic Idea; they are at the same time quite close to Plato. But, but, but, with this essential difference: it's that these are not eternal ideas since at least Berg's *si* did not pre-exist Berg. It's Berg that caused it to exist; it's a world of creativity. But once he created it, Berg's *si*, it's embodied, it's embodied in a concert, at a moment, and then it disappears. But we can still wait ten years should *Wozzeck* no longer be performed, twenty years, forty years, and the eternal object, that *si*, if I dare say, that *si*, will redescend, will be incarnate at the first actual occasion, that is, in the actual occasion.

The eternal object, Whitehead tells us, eternal objects, what are these? How do we define them? These are potentials, Whitehead tells us. You see the difference from the actual occasion. These are potentials. The actual occasion was defined by the concrescence. The eternal object is not a concrescence; it's an *ingression*. It creates ingression in the actual occasion. And no doubt, it's not the deepest of the eternal object, but it's thanks to it that I can recognize something, that is, that I can *identify*. It's the only identical with itself; the eternal object, is the identical with itself. It's this note *si*. It's not at all a generality. It's this note *si* such as it's identical to itself through all the concerts. [Pause] Without it, I wouldn't recognize anything in the world. If I can identify the passage... Rather, [The Web Deleuze transcript recommences here] if I can identify the Great Pyramid through two passages of nature, by saying: it's the same pyramid, it's the Great Pyramid, it's uniquely thanks to an eternal object.

There's what I wanted to say in order to situate this philosophy. I'd just like, if I'd been able to, to have you sense what this philosophy contains that's at once very familiar and very strange for us. It's a mode of thought; I believe that philosophy's create such modes of thought. Besides, that is the title of one of Whitehead's books, *Modes of Thought*. If I summarize, I see three coordinates: the actual occasions defined by conjunctions, prehensions, and eternal objects. To the actual occasion correspond the concepts of conjunction, concrescence, and creativity; to prehensions correspond all the elements that we've not yet seen from prehension, all the components of prehension; to eternal objects correspond the different types of eternal objects. For example, you should already sense that there are sensible eternal objects and there are conceptual eternal objects... No, that's bad, what I just said... There are eternal objects that refer to sensible qualities, and others that refer to scientific concepts.

So where is our problem? All that was relatively simple, but we have three problems, and it's on these points that I so need Isabelle. First problem: we started off from conjunctions, that is, from actual occasions, we already gave ourselves events and a world of events. Can we undertake the genesis of the event? How do we arrive at conjunctions? Are conjunctions just given like that? No. For it doesn't go without saying

that there are conjunctions in the world. From where do we get the explanation that there are conjunctions in the world? For me, I don't know what Isabelle will say, this is the fundamental problem of Whitehead's philosophy. If that problem is resolved, all the rest unfolds, not as a given, but all the rest unfolds rather well. That is really the most difficult problem, where Whitehead is both a physicist and mathematician. He needs there an entire mode of physico-mathematics to take account of the formation of conjunctions, that is, of the formation of actual occasions. Why? Consider this: because we start from a random distribution, a type like the random distribution of electrons, or a variation of an electro-magnetic field. How do conjunctions form in such a world? If we don't have a precise answer to that, well then, we will have failed. We need a precise answer to that question.

The second question will be: what is a prehension made of? What are the elements of a prehension? And if it's true that the actual occasion is a conjunction, we must say in Whitehead's vocabulary, I forgot to indicate this, that an aggregate of prehensions is a nexus, [*Pause*] a nexus. So, the second problem, it's the components of prehensions. Third problem: the modes of eternal objects.

The most difficult for me is this initial genesis. How do we arrive at conjunctions, why are there conjunctions? Is there a reason for conjunctions, a reason that can only be mathematical and physical? I would like Isabelle's thoughts. But that doesn't keep everything from being fine. I'd already like Isabelle's opinion on all that, on, ... Where is she? [*Pause*] Ahhh! What do you think? What is... How do you see all this?

Isabelle Stengers: [*8 minutes, comments barely audible; cf. note for partial summary*]<sup>11</sup>

Deleuze: That's very interesting. That's very interesting because immediately, you insert something that interests me greatly because... It's not at all a question – I assume that everyone here understands this – it's not at all a question of arguing. What strikes me is that what seems to interest Whitehead – the fundamental aspect of all great thinkers; they are rich – what seems to interest Isabelle Stengers in Whitehead is not what interests me most, and what interests me the most is not what interests her. But, once we've established that it's not about saying that one is right and the other is wrong, I believe that these are good conditions so that just as she could ask me some questions, and I would answer as precisely as I can, it's my turn to ask Isabelle questions because I am sure she is able to answer, without at all giving up her viewpoint.

She told us this quite exactly: it is true that at the start of his work, for example in the *Concept of Nature*, Whitehead still thought it possible to create a genesis of the actual occasion, that is, a genesis of conjunctions. And OK, she tells me, at that moment, he thought only a mathematical physics can give us the key to this genesis. And then she says, he might have sensed that, at that moment, if he made a genesis of conjunctions, as any conjunction -- an idea to which he was greatly attached -- since every conjunction is new -- it is in fact innovative (*nouveauté*), in its essence it is innovation; there is no actual occasion that would not be new; it [the conjunction] is not the effect of preceding actual occasions, there is no determinism; an actual occasion is active, it is prehension, that is,

prehending – well, since an actual occasion can not be deduced from anything other than itself, Isabelle thinks that he would have renounced, or at least would have been less interested in its genesis in order to take the problem to a level of a finality and of a very particular conception of God which, ultimately, operates at the level of actual occasions.

As for me, but we will see, I think that the genesis of conjunctions, or the genesis of actual occasions, the physico-mathematical genesis, is something that Whitehead will not renounce, provided that this genesis fully respects the requirement that Isabelle signals, specifically that it must not be a genesis such that the actual occasion would derive, flow or result from its genetic components. It must be a genesis that takes account of this, that the only law of the actual occasion is always to be an innovation in relation to its components. And it is precisely this genesis of innovation that is essential, genesis of innovation as such, that is, that implies no reduction of the new to the former. It is this very genesis that Whitehead, because he knows so much math and physics, is going to create in conditions that, in fact, make of him and his philosophy one of the rare philosophies – in my view, with Bergson’s – to have operated a fundamental linkage with modern science. So, it means that I’d like to proceed almost through question by asking Isabelle each time, does that work, or does it not? For he starts from something, he gives himself something.

We are therefore in my first problem, genesis, the genesis of occasions, or the genesis of conjunctions. A conjunction is something new, of the type: there’s a concert this evening. It’s an innovation, and you won’t engender it, that is, it is not a result. It is not the effect of a cause. A genesis is not causal. So then, what is it? Where does he start from? Well, he starts – and it’s as if I am adding a question mark to all my sentences for Isabelle. He starts from, you will have to excuse my accent, the “many,” [*Pause; Deleuze spells it out and asks around him about the pronunciation*] I’ll never be able to pronounce it. I say it in English because... I would say he starts from the multiple, but a pure and aleatory multiplicity. [*Interruption in the recording*] [1:16:39] [*Text from WebDeleuze*] He gives it a name in *Process and Reality*, it’s the pure state of disjunctive diversity.

### Part 3

[*Return to the recording*] He gives himself any disjunctive diversity whatsoever (*une diversité disjunctive quelconque*). The word disjunctive is very important since he starts from the opposite of conjunction. Disjunctive diversity, what is it? I don’t know. I don’t know. We’ll see rather because what matters is that at each of these steps, there is a kind of adjustment with Leibniz that is astounding, such that all of this is a prodigious reading of Leibniz, at the same time that it then brings forth a new Leibniz for us. It’s a new actual occasion. Astounding. It comes in this way from “many”, a random multiplicity defined by the disjunctive diversity. Isabelle, do you grant me that?

Stengers: Of course.

Second point, that is going to be the first step of the genesis. It will show us that, starting with this step of disjunctive diversity, something absolutely new is produced, the first

step of innovation, sketched in this disjunctive diversity, is sketched in the “many”, of infinite, limitless series, which tend toward no limit. Infinite, limitless series. It’s like the step, this first moment, it’s infinite divisibility. The disjunctive diversity undergoes --, we will see how and why, there are many questions in what I am saying, I am setting out a map – [it] undergoes a process of infinite divisibility that organizes infinite, limitless series in the “many”. [Pause]

So at this stage, here’s the question: what are these series, what are these limitless series, unlimited series, infinite series without limits? I will begin to answer by saying – I am going to lay out my entire schema, and then I’d like for Isabelle to re-intervene -- that this first step rests on an analysis of vibration. Ultimately, at the basis of the event, there are vibrations. At the basis of actual events, there are vibrations. The first step was the “many”, any old vibrations, random vibrations. [Pause]

For those who know Bergson, perhaps you recall the splendid ending of *Matter and Memory*: the basis of matter is vibration, and vibrations of vibration. The correspondence of Whitehead-Bergson is revealed at all sorts of levels, these philosophers are very close. Everything is vibration at this level. But why does vibration already produce this beginning of the order? It’s because every vibration has sub-multiples and extends on these sub-multiples. The property of vibration is to extend on these sub-multiples. The sub-multiples of a vibration -- in this I am not really speaking scientifically, it’s just so you can locate things in your head -- that has a famous name in all domains, and these are harmonics. In this I don’t need to underscore the wink at Leibniz. All this is important for your future. These are harmonics. A color is a vibration, a sound is a vibration. [Pause] As such, every sound has harmonics, every color has harmonics.

So, my hypothesis is this: it is vibration that emerges in the “many,” but how does it emerge, there where we are pushed back... We have to answer everything, and I beg you please not cut me any slack if I don’t answer everything, or else everything will collapse, and so fine, everything collapses. If everything collapses, we will say, fine, that’s doesn’t work, we were wrong, or that Whitehead isn’t a great philosopher. Yet obviously Whitehead is a great philosopher, one of genius, so it has to work. There’s no choice. It has to, it has to, it has to. So ok, my vibration is formed in the “many”, and from that moment, disjunctive diversity starts to be organized into an infinite, limitless series. We must assume that each vibration has sub-multiples, has harmonics into infinity, within the pure cosmos. The cosmos was the “many”, that is, chaos. A chaos. It was the chaos cosmos.

Third step, because we’re not going far with these infinite vibratory series. Infinite vibratory series. Yes! But we have seen that vibrations already have a principle of individuation. Every vibration has an infinity of sub-multiples. This is not the same. What our senses will distinguish as a sound and a color are very different vibrations, with very different harmonics. In other words, a vibration infinitely divisible into sub-multiples that are themselves vibratory, every infinitely divisible vibration has certain intrinsic characteristics, [Pause] these intrinsic characteristics, either concerning the nature of the

envisaged vibration, or [concerning] – extrinsic characteristics – its relations with other vibrations.

I would say that a vibration coming after -- because we're not yet at the sensory organs, but this is out of commodity -- a sound vibration has characteristics of duration, height, intensity, timbre. Color has characteristics, intrinsic and extrinsic, that are tint, saturation, value, the three great dimensions of color, of what color will be, but it's open, I can always find a new one. For a long time, these three variables of color were noted: tint, saturation, and value. Since the end of the nineteenth century, we tend more and more to add to these the extension (*l'étendue*) of color to then define a very interesting new variable that also depends on both, on extension and value, and that is called the weight of color. You indeed see, it's for both; I easily conceive of a sound system that adds other variables to duration, height, intensity and timbre.

But what are these characteristics? Well, these characteristics, you recall them, vibration enters into infinite, limitless series; these are characteristics, or rather as Whitehead says, and who weighs his words carefully, the quantities, the quantitative expressions capable of measuring them, of measuring these characteristics; the quantitative expressions able to measure these characteristics enter into series – this is very important, [this] progress -- enter into series that converge toward limits.

The vibratory series are not convergent and have no limits. It's the first stage of genesis. Second stage of genesis: the series of intrinsic and extrinsic characteristics converge towards limits. This time we have an idea of converging series. The timbers are going to form a converging series; the intensities are going to form a convergent series; the heights are going to form a convergent series, etc. etc. The tints are going to form a convergent series. It's beautiful. That appears to me a thing of very great beauty. It's a genesis of the most... and it's also so full of science, it's a very modern way, a very modern mode of science, in fact, but yet what he's telling us is very simple.

So, in the third stage, I have... The first stage, [there's] the “many” or the disjunctive diversity; second stage, [there's] the organization of infinite, limitless series with the vibrations and the sub-multiples of vibrations; third stage, formation of convergent series toward limits. [*Pause*]

Fourth stage, everything is ready: the actual occasion is the conjunction. The conjunction comes after the convergence. The conjunction is a meeting of two convergent series, at least. You have engendered the actual occasion, and that does not prevent the actual occasion, which is a conjunction, from being radically new in relation to the genetic series that engender it, in relation to two convergent series, at least. It [the conjunction] is completely new.

Hence, fifth [stage] then, what is the actual occasion made of, once we say that we must not confuse the elements of the actual occasion and the conditions of the actual occasion, I would say, the requisites of the actual occasion? The requisites of the actual occasion

are: the disjunctive diversity, the infinite, limitless vibratory series, the convergent series. These are the successive requisites of the actual occasion, that is, of the conjunction.

So you have four terms: 1) the many, 2) the infinite, limitless series, 3) the convergence of series, that is, these are evidently not the same series that become convergent, these are new series; 4) the conjunction of series which yield the actual occasion; 5) what are the elements to be, and not the requisites? What will the elements of the actual occasion be? That is, what is an actual occasion made of? Answer: it is made of prehensions. But what is a prehension made of, what are the elements of the prehension, what are the component elements and not the requisite conditions?

So, what is important to me? I would like for you to understand this before I ask Isabelle. Is this very clear as a schema? It has to be very, very clear. What is important to me is not at all that we discuss this on the level we did earlier, [for example] that we'd have to discuss this on the level of convergent series, non-convergent series, all that. Realize that [while] this refers to all kinds of things in math and in physics, but that really, it corresponds to each person's taste; you don't strictly need to grasp anything at all in order to understand, to understand at least vaguely, or to feel this. As regards "feeling" [Deleuze says this in English] according to Whitehead, you can sense and even you can see this world being formed. The "many" is a kind of soup, it's the great soup, it's what the cosmologists call "the pre-biotic soup," the disjointed members, or what Lucretius already called, what Empedocles already called the *membrae disjunctae*. That links so well with everything that is important in philosophy. It's the river that carries along the *membrae disjunctae*, the scattered members, an arm, and then a nose, all that, it's chaos. But we must assume that it's not a nose, it's an electron of a nose. [Laughter] So that in this soup, exactly as if you stirred a fork through the purée are traced – but all that is really so much Leibniz, we shall see – are traced limitless series without convergence. It's so close to Leibniz.

And then each one of these limitless series without convergence has a characteristic, and the characteristics of series enter themselves into convergent series. You see? And finally, fourth, when they have entered into convergent series, then conjunctions are produced, like lumps in your soup, and these are actual occasions precipitated by a lump; wow! An occasion, there's an actual occasion, and you'll have hardly started chewing on your lump when you will notice that it's composed of prehensions. Fine, so then, is this clear, if not I will start it all over again! [Laughter] Isabelle says ok on "the many".

I am insisting on this; in my view, such a genesis escapes the danger indicated by Isabelle, because the actual occasion is not at all presented as a passive result. Each time there is activity and retro-activity. The convergent series react on infinite series without convergence; the conjunctions react on the convergent series, etc. At each level, there is emergence of a new type of activity. The series is an activity, the convergence of series is another activity, the conjunction another activity, etc... So there, she granted me the stage of "the many" or of the disjunctive diversity. We pass on to the second stage.

But, I am asking her here, in physics – after all, it seems to me that you wrote a book very close to... I don't know if at that time you were aware of Whitehead. Isabelle, when you wrote "States and Process", were you already aware of him? [*Stengers indicates "yes"*] Yes! It's a book with many, many encounters with...<sup>12</sup> So here's my question; it's quite simple. We don't know what happened following the answer Isabelle gave me, so we'll pull back, but I am just saying, we don't know very well what happened in the disjunctive diversity, but we grant ourselves vibrations. There is the formation of vibrations. Where do they come from, vibrations? Once again, I'll have to say it, but I feel rather sure of myself to say where vibrations come from. On this point, I need Isabelle less. Can I say, well indeed yes, these vibration form infinite series that converge toward no limit, and it's the case of a vibration in relation to its harmonics, assuming an infinity of harmonics within chaos? Can I say that, or else is it a stupid proposition from a physics perspective?

Stengers: [*Comments still inaudible*]

Deleuze: You said something quite marvelous then, you see, because I am insisting on the following point: it's a kind of philosophy that is completely in connection with modern science. This is obviously stupid; I refer again to Bergson's example, because to say that Bergson, right, made a metaphysics from duration and liquidates science; one has to be profoundly weak mentally (*débile*), that he wasn't interested in science, one has to suffer from a very, very deep mental weakness to say something like that. Bergson's idea – you're going to see why I am invoking Bergson, it's quite simple -- is that modern science gives us and brings us a new conception of time, scientific time. Modern scientific time which begins in physics around the sixteenth century can be defined scientifically, I say again scientifically, as follows: it's the consideration of time at any instant at all (*à un instant quelconqu*). Why is this modern? Because ancient science defined time as a function of privileged moments. Bergson's idea is very simple, and very beautiful: what did Galileo do, what did Galileo do? Based on that, what did Bergson try to do? He said that ancient metaphysics was the correlate to ancient science.

-- [*Noise of chairs, interruption*] Aie, aie, aie, aie, aie, aie, aie... So, those who want to leave, you just leave, but do so quickly. [*Pause*] Ah, this is hard, eh? It's hard for everybody, but it's hard for me as well. [*Pause*] No, but please, really, leave! I have no problem with it at all. We'll stop for five minutes so that those who want to leave do so, but don't leave one by one... Leave in groups at least. [*Pause*] No, really, this is too much... I can't work in these conditions... Eh, no, that's enough! [*Pause*] So... [*Deleuze's voice becomes indistinct as he talks softly to the students close by him*] --

Fine, I was saying, Bergson tells us exactly: what you call metaphysics, is ancient metaphysics, but to what extent? -- [*Interruption, a student enters from another door*] Ah, he has a key? There's no lock?... Ah, no, this is dangerous because we wouldn't be able to exit... Right, if we manage to get it shut! – So, fine, [Bergson] says: the old metaphysics, what does that mean? But it was perfectly adapted to ancient science, and inversely ancient science was absolutely adapted to its metaphysics. Physics, metaphysics, we must retain these excellent terms. Aristotle created the physics of

movement, and the metaphysics that corresponds to this physics of movement and the physics of movement corresponds to Aristotle's metaphysics.

Today there is a group (*série*) of cretins who have thought, because science had evolved, it could do without metaphysics. Bergson said that this is completely idiotic; this proposition has no sense at all. Simply, science has, in fact, sufficiently evolved – not at all that Aristotle is ancient, that has no sense – one must, including and thanks to Aristotle, take up metaphysics again from zero. One must make metaphysics into the correlate for modern science, exactly as modern science is the correlate of a potential metaphysics that we have not yet been able to create. What is the metaphysics that can correspond to a scientific consideration of time taken as any instant at all? Bergson said: it's mine. Whether he's right or wrong matters little. He meant that it's a metaphysics of duration, and no longer of eternity. You notice the common theme with Whitehead. What is metaphysics for Whitehead that corresponds to modern science? It would be a metaphysics of creativity. It will be a metaphysics of the new, "innovation" [*Deleuze attempts to pronounce the English word "novelty" several times*], the new, the something new.

So, why did I go into all that? I don't even recall... Ah yes! It's marvelous what Isabelle just said because you have exactly... I'm asking: is it possible to conceive of a vibration that extends into the infinity of harmonics, that is, into an infinity of sub-multiples? She answered, obviously yes; but that would not interest a physicist. Notice the notion of "interest": that would not interest a physicist because the whole operation of science will be to find the average. A researcher would be solely interested in the average, and it's in this way that a scholar is a scholar, agreed. He's not at all wrong from his viewpoint. In fact, he'll only be interested in the average. Or a research in other cases, in the case of acoustics, a researcher would be interested only in a number of finite and close harmonics. This is a researcher's job. The metaphysics that corresponds to this science is not a reflection on this science; it must say metaphysically what the science says scientifically, that is, it must say with concepts what science says with functions. Metaphysics is prodigiously interested in not finding the average, and to constitute a series which, in fact, will have no physical interest, but will have considerable metaphysical interest, an infinite series without convergence constituted by vibration and the infinity of its sub-multiples, the infinity of its harmonics.

So, on that note, a second point about which I want to ask... because here, it gets more complicated, it's more technical. It is possible, in fact, that I understood poorly Whitehead's thesis, and that bothers me. First, it's in English, not translated obviously, and you have already guessed that my relationship with English was painful. In any case, I read it well, and it's the chapter, for those who know English and for whom all this is of interest, it's in *Concept of Nature*, it's the marvelous chapter 4. And in this chapter 4, I'll translate a bit then we'll talk; I'll translate little bits for you: "The character of the event" -- for the moment, the event is thus an infinite, not convergent sequence (*suite*) without limits; he has nothing else at this point in the chapter -- "can be defined by the quantitative expressions expressing relations between various quantities intrinsic to the event itself" -- i.e. in the series, diverse intrinsic quantities, it seems to me, of the kind I

had told you about, duration, height, intensity -- “or between such quantities and other quantities intrinsic to other events” -- that is, in other vibrations-- “In the case of events that have considerable spatio-temporal extension, this set of quantitative expressions is highly complex. If  $e$  be an event, let us denote by  $q(e)$  the set of quantitative expression defining its character including its connections with the rest of nature.”<sup>13</sup> So, you see that  $e$  designates the infinite vibratory series extending to the sub-multiples, and that  $q(e)$  designates the characteristic or one of the characteristics of the series. “Let  $e_1, e_2, e_3$ , etc., ... here we have some notions that I don’t need to consider, so I’ll skip ahead... [Deleuze looks in the text]

So, he has two series. He gives us the outline of two series  $e_1, e_2, e_3, \dots, e_n, e_{n+1}, \dots$ , that’s the vibratory series, and  $q(e_1), q(e_2), q(e_3), \dots, q(e_n), q(e_{n+1}), \dots$ , that’s the series of characteristics. So “if  $Q_1$  be a quantitative measurement found in  $q(e_1)$ , and  $Q_2$  the homologue to  $Q_1$  to be found in  $q(e_2)$ , and  $Q_3$  the homologue to  $Q_1$  and  $Q_2$  to be found in  $q(e_3)$ , and so on, then the series  $Q_1, Q_2, Q_3, \dots, Q_n, Q_{n+1}, \dots$ , though it has no last term.” So it has in common with the preceding vibratory series, it has in common not to have a final term, it is indeed infinite... “though it has no last term, it does in general converge” – the series of the  $Q$ s – “it [the series of  $Q$ s] converges to a definite limit” (p. 45). There you are.

So obviously my agony is: Is my commentary correct, since he, Whitehead, gives no examples. Is my commentary correct? I therefore need Isabelle. What is it? The essential point is this birth of the convergent series, convergent toward a limit. What do you think?

Isabelle Stengers: [*Response generally inaudible; she comments (for about a minute) on the different senses of mathematical series and on Whitehead’s reflection on convergent series*]

Deleuze: That is, finally, to be thinking scientifically...

Stengers: [*Inaudible comments*]

Deleuze: That is, you belong to... and it’s quite valuable, that is, at that point, and it’s only when we reach that stage, that he’s a mathematician-physicist.

Stengers: Yes. [*Additional inaudible comments*]

Deleuze: So, that matters to me greatly since I believe in the possibility of relays, in a metaphysical relay in science, once we’ve said that the two disciplines are extremely different. But that does not prevent there being relays in the same work if there is the complementarity that I indicated following Bergson, following Whitehead, if there is this complementarity between metaphysics and science, and that this complementarity has absolutely not gone stale. It’s simply that we don’t yet have -- because it’s just that people have absolutely understood nothing, it seems to me -- and we do not yet have metaphysics from our science, but that doesn’t prevent, despite their different nature, metaphysics-science, there being relays, whereas in the same author, if he has the

necessary competence, and just a bit of metaphysics, there would be a relay through science, etc.

What Isabelle said there that's very important for me is that, in fact, as long as I stay at the infinite series of harmonics, well then, science cannot use that and feels no need to use any of that. But already, it will cause what you called an operative schema to pass; it will cause it to pass as a function. You had another term; you said "construction", right?

Stengers: Yes.

Deleuze: A construction; let's use function, I prefer that word, and this will be Fourier's Law. For those who know this a bit, what in fact you just referred to, Fourier's Law which concerns precisely the basis of vibratory movements, is typically the means by which science is going to use that. And then, [there's] a new stage, the definition and determination of series converging toward limits. So there, this is a scientific act; it's a scientific act that works as relay and then, immediately, -- in fact, that helps me understand something -- Whitehead, to the extent that he created a philosophy book, doesn't even give any examples. I'm the one taking the risk of examples, linked to sounds and color, etc. [Whitehead] uniquely talks about characteristics; he speaks of intrinsic characteristics whose measure tends toward -- this isn't the intrinsic characteristic, right -- that tends toward a limit. And the intrinsic characteristic is capable of and susceptible to a measure, and it's the measure of the intrinsic characteristic that tends toward limits, and at that point, you have convergent series, from that point on, you have them, everything is ready. I am not at all saying that you have conjunctions because conjunctions do not result from all that, but everything is prepared for the emergence of conjunctions. You understand? Such that we are referred all the way back to the start, if you still are up for it. The very beginning, what is that? Well, we were in our soup, and we suddenly say, ah well yes, there are even non-convergent series, these infinite non-convergent series that are formed.

So, just grant me... -- I'm looking to have a little snack. -- Thanks to Isabelle, we can tell ourselves, yes, we see how one passes, we see... One would have to support this scientifically, but that's not our job; she [Isabelle] could do it, but we wouldn't glean very much from the metaphysical perspective. We can therefore pass the series without convergence to the convergent series. What's difficult is how the series are formed in the primitive soup, in the primitive disorder. How is that possible? [Pause] Well, it's this point that I'd like to... Are you still able?

Stengers: [*Inaudible answer*]

Deleuze: I am being a bit hypocritical here... [*Laughter*] By commenting, I'd like to develop this point to see how you react.

Accept that we return to Leibniz. Let's forget everything, let's temporarily forget everything that we just saw for there are texts then -- but perhaps... if we hadn't gone through everything that we just considered, we wouldn't have seen them, we would have

passed beside them since they are not very numerous, but they are very, very profound, very powerful, Leibniz's texts. We perhaps wouldn't have passed them by due to [Michel] Serres because Serres certainly noticed them for reasons that we will see. Besides, if they interest him so much, these texts by Leibniz, it's because these are texts that allude to a primordial chaos, that is, a state of pure multiplicity that corresponds completely to the "many", disjunctive diversity, and that presents itself as purely aleatory successions (*suites*).

For example, in the *New Essays*, book 4, chapter 2, paragraph 14, [Leibniz] evokes a fistful of printer's letters thrown down haphazardly. It's a pure disjunctive multiplicity. In fact, it would be astounding were these to create a sentence, result in a sentence. He gives other examples. The fistful of tossed letters, and then he gives another example that would matter greatly to us since he says textually – go see the text because he wanted [to say] that, but me too – "We don't know how primary numbers are hidden in pleats," in other word, there's no law of primary numbers. They are easy to recognize; we can recognize them, but what law do they obey? We might say, an aleatory distribution, as it were. In any case, for our understanding at the moment, we don't know what the law of primary numbers is, we don't know. It's an aleatory distribution, exactly as if God tossed a fistful of numbers, and then for those that fall face up, he had said, these are primary numbers.

And then he provides yet another example: A thousand cannonballs, a thousand separate cannonballs. He says that they're very tiring to count, and when one gets to the thousandth one... Here, just like that he gives as example of disjunctive diversity a thousand cannonballs that he trots out. He says they're tiring to count, and then when one has counted them, you don't know if you've made a miscount, even by one, so you would nonetheless have to start the count over, such that the artillery men – admire here, the birth of series – the artillery men proceed to create groupings. They proceed to put them into figures, for example, of ten. They will form either lovely pyramids of cannonballs, or delightful squares, or rectangles, whatever you'd like. They place them into figures... [Interruption of the recording] [2:03:28]

#### **Part 4**

... And it's not a convergent series; it converges onto nothing. It's exactly like my second state, an infinite series that converges on no limit. I am making my little groupings of ten; it's a bit what Leibniz constantly calls "creating a table". This is the role of the warehouseman (*magasinier*); all accountancy works this way. And then, I count my figures; do you see this? I have to count one-two-three-four-five-six-seven-eight-nine-ten in order to have my thousand cannonballs. And I haven't counted; I'm sure of myself. See the prodigious step! But we are not there yet; we haven't invented the art of the warehouseman. We're slogging around on our chaotic battlefield with a thousand cannonballs; we tell ourselves, oo là là, how many cannonballs are there? I don't know how many of them there are. Or else with my letters that I use like that...

All that isn't right. And what is that for Leibniz? I am saying the texts are rare. Yes and no, because at the same time, he is so sure of himself, for that state, this state of the "many", of disjunctive diversity, certainly, [this state] is in things. But it's also in our poor heads, [Laughter] the heads that Leibniz is the first philosopher to have assigned the state of our minds in this form, our poor heads in chaos. And that is not at all Cartesian. For Descartes, "I'm wrong, I'm wrong" – he desires this – "I'm wrong, and I am wronged." He is suspicious, he is suspicious. He is wronged all the time. There's even a God who has the time to wrong him; in the end, this is pure paranoia. [Laughter]

Whereas with Leibniz, it's confusional delirium. [Laughter] It's, "what's going on in my head? Ah, what confusion! And what are all these dancing electrons? I can't form an idea; there's an idea leak." This is otherwise nobler than paranoia... Well, really, no, one could admire it. This is to tell you, when you admire a philosopher, and when one makes one's great philosophical choices, one has to say that this commits you, in your soul, in your heart, and even in your reason, in your ailments and in your health. You choose a philosopher with your ailments as well.

So, what is Leibniz? This really is fog in one's head. It's what I was telling you: it's the folds, it's haze. This is not at all Cartesian, not at all. This is not at all the head of the error; it's the head of the indeterminable for [Leibniz]. How am I going to be able to *distinguish*? This is not, "how am I going to be able to have a distinct idea," but "how am I going to be able to distinguish something in all this slush? And what are these, what are all these states?" I was already saying at the last session, these are semi-hallucinatory states. Is this a dream? Is this reality? What is this haze through which I am seeing things? And what are the examples that Leibniz constantly evokes? The background noise of the sea, this is very well chosen. In his head, he perpetually has a sea noise, [Pause] or even uproar (*rumeur*), uproar, a kind of... And in what way are these states realized in the purest state? Dizziness (*étourdissement*).

There, suddenly, this is in texts a thousand times, appearing a thousand times in Leibniz, dizziness, sleep, and death. For, what is death? Do you recall? It's when the body folds back in all its parts; death lodges itself in the folds of ashes, and death is the return to the uproar, to dizziness. There is no difference of nature between death and dizziness. [Pause] Perpetually, the veil, the fog, the dust... Dust, what is there as a more beautiful aleatory distribution [than] dust?

So, I'm saying that here we have a point that Serres made very, very well, and I believe that suits him, suits his own work as much as it can suit what I'd like to do myself. Besides, he wrote a book called – it's one of Serres's books – called *Genesis* and, as he said, should have been called *Noise*, and there's a tiny chapter on "noise", he looked into "noise", and what is noise? He maintains – but here, one must be cautious because... I don't know if it's, if it's... well, no, maybe not really, I lost it... no matter – You'll see there, the little chapter on noise. It's very interesting because he connects noise to the background noise of the sea. And here we see ourselves facing the problem, one that Serres considered entirely in his books, to wit, starting from noise, starting from the background noise, starting from a world of parasites, finally, where everything is parasite

– another book by [Serres] on the parasite – how does we create the genesis of a piece of information? Oh, no, we are not going to talk about information because that doesn't really interest us much, but the genesis of the actual occasion, I could say that the actual occasion, fine, good, that's what a piece of information is, the actual occasion. It's a piece of information, fine, it's a genesis.

So you see? The question is... I'd say as well that in Leibnizian terms, we would have a marvelous definition of chaos to be drawn from Leibniz. It's a mixture; it's the mixed aggregate of impossibles. It's the aggregate of all the possibles; it's the aggregate of all the possibles including the impossibles. That's what chaos is. You remember? And this is before the creation of the world, all that, since God only creates the world by choosing *a world*, a world in which all the elements are compossible and while excluding all the other worlds that would have been possible, but that were not compossible. So, I can say, the aggregate of all the possibles including the impossibles forms chaos; that forms the disjunctive diversity, the "many".

What I therefore judge myself to have shown is that this stage of the "many" – and here, it's not a matter of at all forcing the texts – was really present, fundamentally present in Leibniz's philosophy. Hence comes our question, indeed urgently: what can happen so that there is in this world, in this chaos, in this world of dizziness, something that is distinguished? This is as much the problem of physics as it is the problem of psychology. It's the problem of physics, that is, of a constitution of the world, and it's the problem of psychology, that is, the problem of perception. How am I able to distinguish? How can I have an idea? You understand here as well, there are people who believe that having an idea is a right, and that's not reasonable since what is philosophy? This is not reasonable. Having an idea is a morning of celebration, or an evening of celebration. That happens for you, but that happens so rarely, having an idea. You have to note it down on your daily planner, "I had an idea", [*Laughter*] actual occasion. You see, there is within having an idea, there's an actual occasion, made of a concrescence and an ingression, something concrescent. You can note down the hour, the minute, all that. And one must not think that this can happen very often at all. And Leibniz, who has so many ideas, he did that. Once again, I am perpetually in the fog, each of you is in the fog, and those who think they aren't are some kinds of cretins, that don't know any better. Besides, Leibniz thought about this: the only people who are not in the fog are those reveal only their stubborn fixations (*idées fixes*). So, these cretins are still in the fog because these ones are very, very dangerous.

But, what is going to happen in my fog, in the fog of each of us, in the cosmic fog, in this fog that is the aleatory par excellence? Well, perhaps you recall one of our acquisitions from the previous session, as this all links up, specifically: coextensive with chaos, with this state of chaos, everything occurs as if we could define a primary filter, filtering chaos. The Latin word, taken up by Leibniz, is *cribratio*, filtrage, *cribra* that will yield *criblatio*, but originally it's *cribratio*, filtrage, sifting.

And moreover, I don't know if you recall, at the last session, we saw, with the Baroque regime of light, I spoke to you of the action of light, action. I am not saying light itself.

The action of light is to be a filter; this action presents itself as a filter that exerts itself and consists in filtering the deep shadows (*ténèbres*). It filters the shadows in order to extract what from them? If you recall, it extracts, the first extraction it will make from them, is to pull from the shadows something that is barely distinguishable. Leibniz would say that it is distinguished by a quantity smaller than any quantity that might be yielded, specifically, from filtering from the shadows the dark ground of colors, the dark depth of colors, that is, not yet a color – that would be too easy – the *fuscum subnigrum* [Pause] that is not confused with the shadows and that nonetheless is infinitely nearby.<sup>14</sup>

Fine, so there's the blackish depth. You see, later, that could be translated, for example, in terms of German Romantic philosophy when the great Romantics go on to distinguish the depthless (*sans-fonds*), the beyond the depths, etc. You see that “beyond the depths” of colors, there is a depthlessness that is the shadows, the banished, and the filter, that is, the action of light, is going to pass, is going to brush against the shadows. This is going to be a brushing action of light; it's going to brush against the shadows to extract from them the *fuscum subnigrum*, the blackish depth.

You will say, we haven't moved forward very much. On the contrary, yes we have! We've made enormous progress. This is already the potentiality of colors that you have brought forth. It's marvelous! This filter is like a machine. You remember? We did this way at the beginning; we started off from these things.<sup>15</sup> What is a natural machine? A natural machine, for Leibniz, is a machine whose parts go to infinity, that is, a natural machine is a machine whose parts are machines, and parts of parts that are also machines. What is artificial in machines? It's that they are natural elements. But a machine of nature no longer has any natural element; every element of the machine of nature is a machine.

The filter, the *cribratio*, is the primary machine of nature, and it selects, it grasps from the shadows the “many”, the aleatory distribution, this mixture of dust, this dizziness, etc. It seizes a dark depth of colors in optics; and what [about] in sounds? You sense that I am forced to speak... Of course, you'll say, but no, I can't again be talking about optics! No, there isn't... All that, it doesn't matter. You'll grant it to me. It's afterwards that we'll see that all of this already had a basis, and for the moment, fine... But how does the screen (*crible*) act? If you grant to me that this seems to be of little importance, but that, in fact, it's very important, this little difference of the shadows with the dark depth. If you grant to me that this is an amazing act, the *cribratio* as organization of the world, the primary organization of the world, and well, that ought to resemble something, for those of you who are familiar, [there is] another great, great philosopher, an ancient, who developed, developed in some sublime pages, this is Plato in *Timaeus*. And Plato in *Timaeus* developed a renowned theory under the name of the theory of the *Chôra* [Deleuze spells it out] that is presented according to terms that Plato used, theory of site – no, above all, not space, theory of site, since he says *topos* --, theory of the receptacle, or theory of the nourished. [Pause]

And it's in *Timaeus*, I'm providing the reference because I'd like you to read it for the next time. It's [line] 51 – You know that there are... For those who aren't familiar, I'll clarify: there is a numbering system that's in all the editions, all the editions with

different paginations, but the lines of text are numbered, corresponding to a constant numbering system so that it's easy to find any text by Plato in any edition. – So this is 51 E to 53 C.

And why am I... Wait. Why am I delighted to find this connection to Leibniz, of Leibniz's filtrage, with the Platonic *Chôra*? Because they have been linked to Whitehead, and Whitehead, when he considers in *Process and Reality*, when he considers how one passes from disjunctive diversity to series, he says: it's ether, it's ether, a notion in physics that received throughout the history of physics some very, very different kinds of welcome, and that certain physicists maintain today in a very special sense, but that Whitehead maintained, and that he takes, it seems to me, in a very electromagnetic direction. Ether is finally the electromagnetic field for Whitehead. But ether was also one of Leibniz's terms, in the theory of concrete movement, to distinguish a particularly subtle form of matter. I can say that it's ether that is coextensive with the shadows and that grasps from them the dark depth, and that creates the primary organization. Ether is the first screen (*crible*). We must conceive of ether as a screen. And in his conception of ether, Whitehead says that the best approximation of what he understands by ether will be found in Plato's theory of the receptacle in *Timaeus*. How does the screen act? But I can't go on anymore, so we are stopping. [*Pause*] I hope you can't go on any more.

I'd like for as many as possible among you to read Plato's text, even only just to have a [sense]... It's a splendid, very beautiful text. And now I'd like, before we separate, for those who want to intervene, those who have something to say, to add ... Yes?

A woman student: [*Inaudible question*]

Deleuze: This is a very important question, so I'll answer with two things. Yes, space and time are series, but these series presuppose series of matter. Here as well, just like Leibniz, Whitehead belongs to those who think that there is no empty space-time, but that space and time are fundamentally relative to what fills them. So, there is indeed a series of space and a series of time; there is indeed a spatiotemporal series, and indeed, very complex in Whitehead's philosophy, but we cannot consider this until after all we still have to do. What I am saying does not yet presuppose any... [*Deleuze doesn't finish the sentence*] It's the series of space and of time that is a limit of the series I am discussing, even if the others are inseparable and not the reverse. Likewise, any [*the Web Deleuze transcript picks up here*] Platonic theory of the receptacle does not presuppose space-time, it's the reverse. Space and time will be born in certain conditions. The question is very correct, but it is yet to come.

The student student: [*Inaudible question*]

Deleuze: Ah, no, not actuality. The actual occasion is something that is completely in space and in time. My answer addressed what the relation is between space and time and the series, the initial series for the actual occasion.

The same student: [*Inaudible question*]

Deleuze: Yes, it's the series that I've been speaking about for an hour, the series I've have ceaselessly discussed today, that are initial to the actual occasion, you remember? These are the conditions of the actual occasion, they [the series] are primary in relation to the actual occasion. So, if you will, in order, you have these series which condition the actual occasion, the series space-time, and the actual occasion. The actual occasion is certainly in space and in time.

Stengers: I have a question.

Deleuze: Yes?

Stengers: [*Still barely audible*]<sup>16</sup>

Deleuze: In my opinion, no, but I am not certain that I am correct, but, on the other hand, I recognize you well here, because these are really your own concerns. But that's not bad, it's not at all a criticism. My example of light, if I invoked it, it's a pure example that consisted of using something that cannot intervene at that moment, by right (*en droit*), but which has the advantage of providing an understanding of how a screen (*crible*) functions since, in fact, I said: the action of light consists in making a filter between shadow and dark ground (*sombre fond*) of colors, and on the contrary, the filter I mentioned made a filter between chaos and the dark ground, period. So I was not obligated to grant myself anything, in any case, like light. Does the screen – something more important in my view – does the screen already imply mirror equivalences? That would be extremely worrisome, that would be a big problem because, at that point, this would be all the elements of the actual occasion that would be there, so we must not. So, in my view, I think not. If we were obliged to include quasi-mirrors, that would complicate things a lot, but I hope there is no need for a quasi-mirror.

Stengers: When you read Whitehead to us, and you made your series of Q, Q1, Q2, Qn+1, this n+1, does that mean we continue like that to infinity, or does it just mean that we are in a space of three + one dimensions?

Deleuze: No, the symbols Q1, Q2, Q3, etc., don't constitute... It's a series of characteristics, but each one animates a convergent series. Each characteristic has a convergent series, and on the other hand, you have an open, unlimited series of characteristics.

A woman student: [*Inaudible; from the context, this seems to be a question about Bergson*]

Deleuze: That would be very interesting, yes, but with one danger...

The student: [*She continues speaking*]

Deleuze: Yes, especially as he [Bergson] had an interest first, there's his double interest for games and then, I don't know... You know, you, [*Deleuze speaks to a student nearby*]

him] his relations with science? Did that interest him? He was perhaps aware of... [Affirmative response] He was familiar with the sciences, Bergson, but did physics interest him? [Several responses, including from Stengers] Yes, so there would be knowledge of physics... Yes, what you are saying is very interesting. This is the kind of thing that has to be done, you have to do it.

You must assure yourself of the extent to which the problem is common, but that has no interest for your project because, even if the problem isn't common, they undergo entirely... It's not entirely valid, but at that point, one must not make any juxtapositions that are too... But, it's possible moreover that in fact -- after all, what I'm saying is stupid, it's true -- that when we see the study of movement in Duchamp...

A student (nearby Deleuze): [Intervention suggesting a possible link, in New York, between Duchamp and Whitehead]

Deleuze: Yes, this is good, this is good. Fine, well then, read Plato [for next time]. [End of the recording] [2:33:31]

## Notes

<sup>1</sup> By introducing the intersection of Leibniz and Whitehead here, Deleuze develops several points – on the "many", chaos, concrescence, prehensions, and of course, the event – that are found in chapter 6 of *The Fold*. Deleuze explains in the opening paragraph that he intends to take advantage in this meeting of the presence of Isabelle Stengers to consider the relationship between Leibniz and Whitehead.

<sup>2</sup> Deleuze refers precisely to this term as he starts chapter 6, "What is the Event?" in *The Fold* (University of Minnesota Press, 1993), p. 76; *Le Pli* (Minuit, 1988), p. 103.

<sup>3</sup> Whitehead started at Harvard in 1924; his *Science in the Modern World* was published in 1925.

<sup>4</sup> Cf. this sentence as evocation of the event in *The Fold*, p. 80; *Le Pli*, p. 109.

<sup>5</sup> Deleuze summarizes the three components of the event in *The Fold*, pp. 76-78; *Le Pli*, pp. 104-106.

<sup>6</sup> This term corresponds to the third component of the event in *The Fold*, pp. 77-78; *Le Pli*, pp. 105-106.

<sup>7</sup> Deleuze does not complete the term "prehension" here, no doubt, because he not yet laid the groundwork to introduce it.

<sup>8</sup> In *Swann's Way*, we read: "At first, the piano complained alone...; the violin heard and answered it" (Modern Library 1994), p. 500.

<sup>9</sup> On Alban Berg's *Wozzeck* and the cry, see "O as in Opera" in *L'Abécédaire de Gilles de Deleuze (Gilles Deleuze, From A to Z)*.

<sup>10</sup> Cf. text of the *Monadology* on the Gutenberg Project (translation Jonathan Bennett), <http://www.gutenberg.org/files/39441/39441-0.txt> (accessed 8 December 2019).

<sup>11</sup> Although Isabelle Stengers's comments here (approximately 8 minutes) are vaguely audible with the BNF recording, enough words and phrases drop out so that the transcription would be rather bothersome and certainly imprecise. Given that Deleuze sums up what she says in his own way, a brief summary of her comments must suffice: In short, she considers changes in Whitehead's thought in considering certain problems regarding the event. First, for him, he sought a mathematical solution in order to give it a functional definition. However, given certain difficulties that this path he created, he turned to something unexpected, the concept of God, but insofar as it was a creature rather than the Supreme Being and creator of all things. In Whitehead's thought, according to Stengers, God functions as the apprehension of the actual world, and moreover, the one who contemplates eternal objects of this world insofar as being a creature of creativity. So Whitehead chose the word "to envisage" in order to describe God's role, that is, the creativity of "envisaging" in the sense of what is the best, for its impacts. It's a question, she says, of a God as agitator, experimenter, catalyser, who proposes the new.

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<sup>12</sup> This reference is quite likely to Stengers and Ilya Prigogine, *La Nouvelle Alliance* (Paris: Gallimard, 1979), translated as *Order out of Chaos* (Ann Arbor, MI: University of Michigan Press, 1984).

<sup>13</sup> Cf. *Concept of Nature*, in the Gutenberg Project text, <http://www.gutenberg.org/files/18835/18835-0.txt> p. 45 (accessed 30 March 2024).

<sup>14</sup> Deleuze explains this filtrage in *The Fold*, p. 77; *Le Pli*, p. 104.

<sup>15</sup> See the session on 28 October 1986.

<sup>16</sup> Stengers asks a question about the screen, and makes a juxtaposition with what Bergson says in *Matter and Memory* on mirrors, and asks Deleuze if he could do something with the screen in light of Bergson.