Deleuze's Third Synthesis of Time[1]

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Abstract

Deleuze's theory of time set out in *Difference and Repetition* is a complex structure of three different syntheses of time – the passive synthesis of the living present, the passive synthesis of the pure past and the static synthesis of the future. This article focuses on Deleuze's third synthesis of time, which seems to be the most obscure part of his tripartite theory, as Deleuze mixes different theoretical concepts drawn from philosophy, Greek drama theory and mathematics. Of central importance is the notion of the cut, which is constitutive of the third synthesis of time defined as an a priori ordered temporal series separated unequally into a before and an after. This article argues that Deleuze develops his *ordinal* definition of time with recourse to Kant's definition of time as pure and empty form, Hölderlin's notion of 'caesura' drawn from his 'Remarks on *Oedipus*' (1803) and Dedekind's method of cuts as developed in his pioneering essay 'Continuity and Irrational Numbers' (1872). Deleuze then ties together the conceptions of the Kantian empty form of time and the Nietzschean eternal return, both of which are essentially related to a fractured I or dissolved self. This article aims to assemble the different heterogeneous elements that Deleuze picks up on and to show how the third synthesis of time emerges from this differential multiplicity.

Keywords: synthesis of time, Kant, Hölderlin, Dedekind, eternal return

I. Kant's Definition of Time

In his 1978 lecture series on Kantian philosophy, Deleuze states what seemed to be most essential to him: 'all of the creations and novelties

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that Kantianism will bring to philosophy turn on a certain problem of time and an entirely new conception of time' (Deleuze 1978a: 1). According to Deleuze, Kant's greatest achievement is the radical reversal of previous cosmological and psychological conceptions of time. With Kant, time is no longer subordinated to the measure of movements in nature (such as the movement of celestial bodies in their orbits), nor can it be defined by the simple succession of psychological states. Instead, Kant defines time as a 'form of interiority', a pure and empty form, in which all change of appearances is to be thought, but which does not change itself. In Deleuze's words, time loses its modal character and ceases to be cyclical. It becomes a pure straight line that cleaves the subject into two unequal halves: the empirico-transcendental doublet. Referring to these novelties that Kantianism brings to the philosophy of time, Deleuze chooses two poetic formulas: (1) 'The time is out of joint', uttered by Hamlet in Shakespeare's tragedy *Hamlet, Prince of Denmark*, and (2) 'I is an Other' from the French poet Rimbaud.[2] In what way do these poetic formulas apply to Kant's theory of time?

(1) Hamlet's utterance 'The time is out of joint' refers to a particular time, that is, the time through which he is living. However, in the way that Deleuze uses the formula it has a much wider, metaphysical import: 'Time out of joint' now means that time has become 'demented time' (*temps affolé*), it has lost its balance, its groundedness, its stability, which it still possessed in ancient Greek cosmology. According to Plato, time presented a 'moving image of eternity' (Plato 1997: 37d), which moved according to number. For both Plato and Aristotle, time was defined as a 'number of movement', counted by the celestial revolution of planets passing through certain 'cardinal points'. The uniform and circular motion of planets provided a means to mark off regular periods of time. Consequently, time was thought of as cyclical and inseparable from the movement of physical bodies. As Aristotle put it: 'time is a number of movement – but there is no movement without physical body' (Aristotle 1995: 279a15). This is why Deleuze attributes to the ancient Greeks a concept of time which 'is a mode and not a being. No more than number is a being, it's a mode in relation to what it quantifies, in the same way time is a mode in relation to what it measures' (Deleuze 1978b: 2). According to Deleuze, time loses its modal character and ceases to be circular only subsequent to the establishment of modern science in the sixteenth and seventeenth centuries (in particular, in the scientific cosmology of Newton). With Kant finally, time becomes purely formal, it has unrolled itself into a pure 'straight line'. As we will see, the consequences of this new Kantian definition of time are tremendous: the

ancient cosmological harmony between the world and the heavens, man and the heavenly gods has broken down. Time has ceased to be an image of the eternal order. It has shaken off its subordination to the periodical movements of planets. It is as though Timaeus's prediction has become true: 'Be that as it may, Time came into being together with the Heaven, in order that, as they were brought into being together, so they may be dissolved together, if ever their dissolution should come to pass' (Plato 1997: 38b). The time of antiquity has perished together with the gods and the heavens, and a new time is born. Pure and empty time is now the true subjectivity. It has become an infinite, straight line, which cuts right through the consciousness of the modern subject.

(2) Deleuze expresses this fracture of the modern subject with Rimbaud's formula 'I is an Other'. This is then the second novelty that Kant brings to philosophy by uncovering 'that schizophrenia in principle' (Deleuze 1994: 58). By defining time as a form of interiority, Kant introduces a fundamental split in the subject. The Kantian subject is torn between the form of spontaneity, that is, the 'I think' which accompanies all concept production and guarantees the unity of synthesis, and the empirical self which experiences the effects of thought rather than initiating the act of thought itself. According to Deleuze, Rimbaud's formula 'I is an Other' is apt to express the alienation to which the Kantian subject succumbs. It should be noted, however, that Rimbaud's phrase occurs in a rather different context. Rimbaud understands the formula 'I is an Other' in the light of Aristotle's distinction between determining form and indeterminate matter. This becomes evident, when Rimbaud says: 'Too bad for the wood which finds itself a violin! If the copper wakes up a bugle, that is not its fault' (Deleuze 1984: ix).[3] By means of the formula 'I is an Other', Rimbaud expresses the experience of being formed by thought rather than being the originator. Thought forms me – I am not the master of thought at all.

With Kant, however, the concern is no longer of a form that informs matter but – in Deleuze's words – of 'an infinite modulation, no longer a mould' (Deleuze 1984: ix). *Thought works within me*. I am affected by thought that is both mine and the thought of an Other. The fracture or crack in the 'I' is produced by the pure and empty form of time. This means that I experience myself, that is, my feelings, thoughts, actions and bodily sensations, always under the condition of time, which is the interior form of receptivity. But the synthesis of all these different representations within the unity of consciousness is performed by the transcendental I, or the 'I think' as the transcendental form of apperception. Phrased more precisely, the I affects itself under the form of time. The remarkable outcome of this kind of auto-affection is that the difference between being and thought, or matter and form, is *interiorised*. Deleuze refers to this establishment of internal difference as the moment of 'discovery of the transcendental, the element of the Copernican Revolution' (Deleuze 1994: 86). Thus, for Deleuze, the transcendental difference that Kant discovers is necessarily linked to his definition of time as form of interiority or form of auto-affection which splits the subject into two unequal halves: the empirico-transcendental doublet.

II. Hölderlin's Caesura

Certainly, Deleuze does not simply adopt the Kantian empirico-transcendental doublet with its distinctive distribution of active synthesis and passive receptivity without synthesis. What he takes up instead is the idea of an internal difference or fracture in the subject, which occurs through the disruptive introduction of a caesura or cut. Deleuze's account of the third synthesis of time deviates from the Kantian definition of time as an a priori given, infertile subjective form. Instead, Deleuze conceives of time as a productive power of synthesis – in his words, a 'static synthesis' which is constituted by a 'caesura' or cut. He finds the notion of the 'caesura' in Greek drama theory, more concretely, in Hölderlin's 'Remarks on *Oedipus*'.

Hölderlin interprets Sophocles's *Oedipus Rex* as the undoing of the coupling between man and god: man and god have become 'an unlimited One', which, however, can be 'purified' only through an 'unlimited separation' (Hölderlin 1969: 736). Deleuze describes this unlimited separation as a double deviation: 'God turns away from man who turns away from God' (Deleuze 1978b: 4). While in the tragedies of Aeschylus or Euripides the gods still ensured justice, they punished and pardoned according to their judgement, Sophocles's tragedy marks a significant change. The bond between man and the gods has broken. The gods abandon Oedipus in the critical moment of his suffering, and Oedipus rages against the divine betrayal, searching desperately for who he is and trying to recover his identity. Hölderlin describes the moment as follows:

> In the utmost form of suffering . . . there exists nothing but the conditions of time and space. Inside it, man forgets himself because he exists entirely for the moment, the god [forgets himself] because he is nothing but time; and either one is unfaithful, time, because it is reversed categorically at such a moment, and beginning and end no longer rhyme; man because at this moment of

> categorical reversal he has to follow and thus can no longer resemble the beginning in what follows. (Hölderlin 1969: 736)

Oedipus is left with the pure form of time, which is emptied of all meaningful content and announces neither punishment nor relief from the interminable, incessant suffering. As Hölderlin says, time is reversed categorically: it no longer forms a cycle in which beginning and end rhyme – as it was still the case in the tragedies of Aeschylus and Euripides, when the unity of the cosmos was intact, and when the divine law revealed itself in the order of the universe, the course of nature and human fate. Now, the cycle of time has unrolled itself and become a straight line, the tortuous, indivisible and incessant labyrinth that Deleuze finds in Borges (Deleuze 1984: vii, 1978b: 2).[4] It is the straight line that Oedipus wanders in his long and lonesome wandering through the desert with no aim and no end in sight. As Hölderlin says in very Kantian terms, 'there exists nothing but the conditions of time and space' (Hölderlin 1969: 736).[5]

Moreover, when Oedipus's crime is finally discovered, that is, when the blind seer Tiresias reveals to Oedipus that he had killed his own father Laius and married his own mother Jocasta of Thebes, Oedipus can no longer resemble what he has been before. Tiresias's intervention has put before Oedipus the thought that he may not be the son of King Polybus of Corinth and his wife Merope who raised him. This is a thought which is almost impossible to think. All of the personal memories in which Oedipus has believed so far, together with his future expectations are eliminated, destroyed at a single blow. In fact, the caesura is not only a break in time, but also a split of Oedipus's self. Oedipus is other to himself. He experiences this internal difference in the pure present, the 'pureness' of which signifies that it occurs like a cut. The series of former presents do not converge with this present moment.

We thus have an order of time, determined by the caesura which draws together a before and an after and thereby the totality of time. It is of little importance when the caesura, that is, the exact moment of the fracture of the self, happens in empirical time. It can be at the moment of Tiresias's revelation or a little later after Oedipus's further inquiries. Or a crack might have appeared when Oedipus committed the crime of killing his father and then marrying his mother. To complicate things further, maybe an invisible crack already became manifest when the infant Oedipus was saved from death against the will of his father and in defiance of the gods' oracle. The empirical incarnation does not count: the caesura or cut refers to a symbolic event, which determines the order of time a priori. Thus, the past is the time before the caesura; the pure present is the becoming equal to the event and the experience of internal difference; the future finally is the time after the caesura.

III. Dedekind's Method of Cuts

As we have seen, Deleuze's third synthesis of time has to be understood as an *a priori ordered series* that is produced by a caesura. The caesura is the formal element which distributes on both sides the before and the after which no longer rhyme together. Deleuze insists that

> the future and the past here are not empirical and dynamic determinations of time: they are formal and fixed characteristics which follow *a priori* from the order of time, as though they comprised a static synthesis of time. The synthesis is necessarily static, since time is no longer subordinated to movement; time is the most radical form of change, but the form of change does not change. (Deleuze 1994: 89)

The idea of the form of time, which does not change itself, is clearly a Kantian thought. Repeatedly, Kant says in the *Critique of Pure Reason* that 'time itself does not alter, but only something that is within time' (Kant 1998: A41/B58).[6] But is it true that Deleuze still adheres to the traditional philosophical conception of form? Deleuze's remarks on a 'static synthesis' should make us suspect that Deleuze is not simply repeating Kant's theory here. Equally, the idea of a 'caesura', which constitutes a serial and linear time by distributing a before and an after, indicates a source other than Kant. For sure, Deleuze deduces the term 'caesura' first and foremost from Greek drama theory, but in his lecture course on Kant of 21 March 1978, he does not hesitate to compare it to the mathematical terms 'limit' and 'cut' (*coupure*).[7] Moreover, the word 'caesura' derives from the Latin root '*caes*' and can thus be rendered as 'cut'.[8] For these reasons, we suggest that the 'caesura' can be understood by means of the concept of 'cut' in Dedekind's theory of real numbers, which Deleuze discusses in Chapter 4 of *Difference and Repetition* in the context of the continuousness of Ideas (Deleuze 1994: 172).

The mathematician Richard Dedekind (1831–1916) is famous for giving a rigorous arithmetical foundation to differential calculus, and thereby expunging from calculus geometric undefined concepts such as 'infinitesimal' quantities and the limit concept involving the idea of *approaching*. Deleuze acknowledges his achievements, in particular the renewed conception of limit: 'the limit no longer presupposes the ideas of a continuous variable and infinite approximation. On the contrary, the notion of limit grounds a new, static and purely ideal definition of continuity' (Deleuze 1994: 172). Indeed, it can be argued that Dedekind invents this new 'static and purely ideal' conception of continuity. His thoughts on continuity were first published in the groundbreaking essay 'Continuity and Irrational Numbers' in 1872, fourteen years after he developed the basic ideas on which it relies. The main question the essay deals with is: what is the nature of continuity? As Dedekind states:

> an explanation of this continuity is nowhere given; even the most rigorous expositions of the differential calculus do not base their proofs upon continuity but... they either appeal to geometric notions or those suggested by geometry, or depend upon theorems which are never established in a purely arithmetic manner. (Dedekind 1901a: 2)

That is, the notion of continuity was either geometrically explained as a vague hang-togetherness, an 'unbroken connection in the smallest parts' (Dedekind 1901a: 10–11) or was based on insufficiently founded theorems, such as that every magnitude which grows continually, but not beyond all limits, must certainly approach a limiting value. Dedekind set himself the task of securing a real definition of the essence of continuity. He first approached the problem by trying to 'map' the geometrical continuum (the straight line) onto ordered systems of discrete quantities (numbers). Comparing the system of rational numbers with the points of the straight line, he saw that they cannot be put into a one-to-one-correspondence with each other: although each rational number can be correlated with a point on the line, not every point of the line can be expressed as a rational number. In fact, in the straight line there are infinitely many points which correspond to no rational number. To identify these points, which are inexpressible as rational numbers, Dedekind used a method of division: the Dedekind 'cuts' (*Schnitte*). Any cut divides the points of the line into two classes, such that all the points of one class are always to the left of all the points of the other. Furthermore, there is precisely one and only one point determined by this cut. The cut can correspond to a rational number, or else designate a 'gap' between the rational numbers, that is, an irrational quantity (such as $\sqrt{2}$). In the latter case, cuts define a new type of number, that is, the irrational numbers.

Dedekind first made use of geometrical considerations in order to introduce the notion of the cut. However, he sought to define cuts directly in terms of the number system, so that any reflections on geometric lines can be put aside. As Robert Bunn says:

> Geometry was to serve only as the source of the idea for constructing an arithmetical foundation. The continuous system which was to be Dedekind's foundation would be arithmetical in the sense that its operations would ultimately be defined in terms of operations on natural numbers, and no mention would be made of any geometrical objects. (Bunn 1980: 223)

Dedekind demanded that the system of rational numbers be improved by 'the creation of new numbers such that the domain of numbers shall gain the same completeness, or as we may say at once, the same *continuity*, as the straight line' (Dedekind 1901a: 9). As it is, the system of rational numbers is marked by a certain incompleteness or discontinuity, due to the existence of gaps. Thus, in order to render the domain of rational numbers into a continuous system, Dedekind defined for each cut that is not produced by a rational number a 'new object', which he called an irrational number. For example, $\sqrt{2}$ can be defined as the cut between two classes, A and B, where A contains all those numbers whose squares are less than two and B those whose squares are greater than two.

It should be noted that Dedekind did not identify irrational numbers with cuts, since every definite cut produces either a definite rational or irrational number. Rather, Dedekind cuts constitute 'the next genus of numbers' (Deleuze 1994: 172), namely 'real numbers'. The order of real numbers allows the treatment of both rational and irrational numbers as elements in an encompassing number system, which forms a continuous and ordered system. It has to be emphasised that this continuity of the number system is something quite different from the traditional conception of continuity founded on the intuition of the way in which geometric quantities arise: according to an intuitive conception of continuity, a line is considered continuous insofar as it arises from the continuous movement of a point, and a plane from the movement of a line. By contrast, Dedekind's new conception of continuity claims not to rely on intuition, or any considerations of smooth movement. It claims to contain nothing empirical, since it can be deduced from number systems alone. For Dedekind, 'numbers are free creations of the human mind' (Dedekind 1901b: 31). As he explained in his 1888 essay 'The Nature and Meaning of Numbers' (*Was sind und was sollen die Zahlen?*):

> In speaking of arithmetic (algebra, analysis) as a part of logic I mean to imply that I consider the number-concept entirely independent of the notions or intuitions of space and time, that I consider it an immediate result from the laws of thought. (Dedekind 1901b: 31)

Accordingly, Dedekind's project of arithmetising the conception of continuity was not to be grounded on vague, geometrical intuitions of space and time but rather on an Idea of reason: the Idea of an infinite, ordered and dense set of numbers each of which can in principle be identified by a Dedekind cut.[9] In fact, Dedekind's 'continuity' can better be described as the property of the 'completeness' that characterises certain densely ordered number systems. As Robert Bunn puts it:

> a densely ordered system is *complete* (*continuous*) in Dedekind's sense if every cut in the system is produced by exactly one element of the system, that is, if there is an element of the system which is either the maximum of the lower section or the minimum of the upper section. (Bunn 1980: 222)

Bunn concludes that 'the term "continuous" is not an especially apt one for the characteristic involved, but it indicated the correlate in the old system – continuous magnitude' (Bunn 1980: 222). Carl Boyer, a historian of mathematics, explains that the notion of continuity 'specifies only *an infinite, discrete multiplicity of elements*, satisfying certain conditions – that the set be ordered, dense, and perfect' (Boyer 1949: 294; emphasis added), whereby the mathematical term 'perfect' is synonymous with the term 'complete', which are both translations of the German term '*vollkommen*'. Boyer further argues that there is 'nothing dynamic in the idea of continuity' (Boyer 1949: 294).

However, it is not altogether clear whether Dedekind really succeeded in giving a purely ideal, arithmetic definition of continuity. In fact, he is criticised by Russell and Wittgenstein for failing to get away from the geometrical image of the number line.[10] Russell argues that Dedekind's method of dividing all the terms of a series into two classes, one greater than the cut and one less than the cut, proves problematic in the case where the point of section is supposed to represent an irrational. In this case, the two classes of either side of the cut have no limit or last term. For instance, in the case of the irrational section at $\sqrt{2}$, 'there is no maximum to the ratios whose square is less than 2, and no minimum to those whose square is greater than 2. . . . Between these two classes, where $\sqrt{2}$ ought to be, there is nothing' (Russell 1919: 68). Thus, a 'gap' appears at the point of section where the irrational is supposed to be. According to Russell, the spatial image of a line and the unsettling idea of a gap led people to postulate that there must be some limit:

> From the habit of being influenced by spatial imagination, people have supposed that series *must* have limits in cases where it seems odd if they do not. Thus, perceiving that there was no rational limit to the ratios whose square is less than 2, they allowed themselves to 'postulate' an *irrational* limit, which was to fill the Dedekind gap. Dedekind, in the above-mentioned work ['Continuity and Irrational Numbers'], set up the axiom that the gap

> must always be filled, *i.e.* that every section must have a boundary. (Russell 1919: 71)

Russell condemns this method of 'postulating' and aims to give a precise definition of real numbers by a method of 'construction' (Russell 1919: 73). That is, he abandons the idea of points of space or extension and substitutes for them the logical construction of 'segments'. He finds that 'segments of rational numbers . . . fulfil all the requirements laid down in Cantor's definition, and also those derived from the principle of abstraction. Hence there is no logical ground for distinguishing segments of rationals from real numbers' (Russell 1937: § 270).[11]

Wittgenstein joins Russell in his criticism of Dedekind's method of cuts, although he does not follow Russell's set-theoretical solution. According to Wittgenstein, the major error that Dedekind committed was using the concept of cut – a concept which is '*taken over from the everyday use of language* and that is why it immediately looks as it if had to have a meaning for numbers too' (Wittgenstein 1956: 150; original emphasis). The verb 'cutting' is commonly used to refer to an activity that divides a spatially extended object into parts. The cutting of a number line is supposed to work analogously: the division produced is seen 'under the aspect of a cut made somewhere along the straight line, *hence extensionally*' (149; original emphasis). 'The cut is an extensional *image*' (150; original emphasis). For Wittgenstein, the idea of a cut is 'a dangerous illustration' and yields only an 'imaginary', a 'fanciful application' (148). However, Wittgenstein admits that in a way we can attach a meaning to the expression that every rational number is a principle of division of the rational numbers (149), but this is not so in the case of irrationals, which are not even defined as numbers yet. From the erroneous image of a number line the idea ensues that irrationals can be represented as points on the line just like the rationals, and that both are elements of an encompassing number system, the real numbers. 'The misleading thing about Dedekind's conception', Wittgenstein says, 'is the idea that the real numbers are there spread out in the number line' (151). 'The picture of the number line is an absolutely natural one up to a certain point; that is to say so long as it is not used for a general theory of real numbers' (148). Wittgenstein faults Dedekind for his general way of talking, which, although it might prove useful, implies 'the danger . . . that one will think one is in possession of the complete explanation of the individual cases' (153). Thus, we are led to believe that 'the *general* account could be quite understood even without examples, without a thought of intension*s* (in the plural), since really everything could be managed extensionally' (153; original emphasis). The problem with irrationals surely is that no example of an irrational number could really be given. The ancient Pythagorean example of the square root of two again relies on a geometrical illustration, namely the square's diagonal, which proves incommensurable with the square's sides whose lengths measure one unit. Within this geometrical image, the square root of two can be represented by the intersection of a circular arc (generated by taking the diagonal as the radius of a circle) and the straight line extending from the square's base. However, by what right can we say that this intersection identifies a point and defines a number? As Wittgenstein hypothetically suggests: 'For, if I were to construct really accurately, then the circle would have to cut the straight line *between* its points', and he continues: 'This is a frightfully confusing picture' (151; original emphasis). We almost feel forced to assign to the irrational a point on the line, because we are in the grip of a picture (the picture of a continuous straight line consisting of points). However, why can we not define the irrational as a number? The expression $\sqrt{2}$ certainly seems to indicate a number, yet what it does is simply to provide a rule for generating an indefinitely expanding decimal fraction. For Wittgenstein, irrationals are rules or laws; they do not indicate some Platonic arithmetical entity, a perfectly definite number, but rather 'the unlimited technique of expansion of series' (144).

As we have seen, both Russell and Wittgenstein doubt that Dedekind managed to escape the geometric image of the number line in his attempt to provide a purely arithmetic definition of irrationals. Let us now bring Deleuze into the discussion. It seems that Deleuze does not have qualms about Dedekind's method of cuts and definition of continuity. Indeed, he says that we gain 'a new, static and purely ideal definition of continuity' (Deleuze 1994: 172), which is grounded on the Dedekind cut, inasmuch as it constitutes this new continuous and ordered system of real numbers. Deleuze also calls the Dedekind cut the 'ideal cause of continuity' (Deleuze 1994: 172). Now the question to ask is: in what way can Deleuze benefit from Dedekind's theory of cuts and the notion of continuity that designates not a 'vague hang-togetherness' but rather an infinite, discrete multiplicity of elements whose order is a priori determined? Deleuze uses Dedekind's ideas in order to construct a time that is not empirically defined through our intuition of a dynamic flux of events, but one that is determined a priori and designates a *static state of affairs*. This latter time is a 'static synthesis' of discrete elements (past and future moments), which are distributed by the caesura, that is, 'a genuine cut (*coupure*)' (Deleuze 1994: 172), into a before and an after.

The caesura or cut is constitutive of this continuous ordered system of time, which maps onto the straight line. Thus, Deleuze transforms the Kantian definition of a purely formal time by means of mathematical considerations on the notion of 'cut' and 'static synthesis'. For Deleuze, the third synthesis of time is not simply an a priori subjective form, but an a priori and a-subjective static synthesis of a multiplicity of temporal series.

However, Deleuze's account of a serial and linear time is not as straightforward as we have presented it above. Deleuze does indeed make use of the Dedekind cut and the idea that it constitutes a static continuum, yet he takes licence in modifying Dedekind in a way that is not Dedekindian at all. The way that Deleuze conceives the series of time rather incorporates the idea of the irrational cut designating a 'gap'.[12] In *Difference and Repetition*, Deleuze says that 'the irrational numbers . . . differ in kind from the terms of the series of rational numbers' (Deleuze 1994: 172). They are 'constructed on the basis of an essential inequality' in relation to the next-lowest type of numbers, that is, the rational numbers. That is to say, they express the 'impossibility of determining a common aliquot part for two quantities, and thus the impossibility of reducing their relation to even a fractional number' (232). However, they compensate for their characteristic inequality by their 'limit-equality indicated by a convergent series of rational numbers' (232).[13] Now the interesting move by Deleuze is to ascribe an original intensive nature to irrationals, an implication of difference or inequality, which is cancelled or covered over as soon as they are constructed as elements of an extensive plane of rational numbers. In fact, Deleuze holds that an intensive nature belongs to every type of number, insofar as they are not explicated, developed and equalised in an extensity:

> Every number is originally intensive and vectorial in so far as it implies a difference of quantity which cannot properly be cancelled, but extensive and scalar in so far as it cancels this difference on another plane that it creates and on which it is explicated. (Deleuze 1994: 232)

Deleuze's claim that irrationals have a certain intensive depth, an inequality or implicated difference, which is cancelled in the general definition of a continuum of real numbers, seems to resonate with Wittgenstein's remark: 'The extensional definitions of functions, real numbers etc. pass over – although they presuppose – everything intensional, and refer to the ever-recurring outward form' (Wittgenstein 1956: 150). However, while Wittgenstein seems to understand the 'intensional' nature rather in terms of a rule or law, Deleuze speaks of 'intensity' and its differential nature.[14]

Deleuze's reflections on the nature of irrationals show that he also regards the number line as a fiction, a spatial image, which covers over an intensive depth. The straight line of rational points is but 'a false infinity, a simple undefinite that includes an infinity of lacunae; that is why the continuous is a labyrinth that cannot be represented by a straight line' (Deleuze 1993: 17). We have already come across Borges's labyrinth of the straight line. Thus, it seems that Deleuze, when he speaks of a line of time, does not mean a simple straight line, but one that is perforated by lacunae.[15] These lacunae or gaps are precisely designated by the irrational cut, that is, the interstice between series of rational numbers. They symbolise the irruption of the virtual event within the empirical continuum of space and the chronological succession of instants.

In order to better understand the impact of the cut, that is, the irruption of the virtual event on the subject, we have to turn to Nietzsche. As will become clear, all threads come together with Nietzsche's eternal return.[16] In Deleuze's reading, the eternal return is a *series of time*, constituted by an irrational cut, 'which brings together the before and the after in a becoming' (Deleuze 1989: 155). This irrational cut or caesura produces a split subject and brings it into contact with an outside, the realm of virtual events. In fact, in *Cinema 2*, Deleuze explicitly connects the concept of the irrational cut with Nietzsche's conception of time in his definition of the third time-image:

> This time-image puts thought into contact with an unthought, the unsummonable, the inexplicable, the undecidable, the incommensurable. The outside or the obverse of the images has replaced the whole, at the same time as the interstice or the cut has replaced association. (Deleuze 1989: 214)[17]

IV. Nietzsche's Eternal Return

The cut or caesura of serial time has a detrimental impact on the subject. We have already seen that Deleuze's third synthesis of time is profoundly linked to the notion of a fractured I, be it Kant's empirico-transcendental doublet or Oedipus's dissolved self, as developed in Hölderlin. Now Deleuze turns to Nietzsche, who will be the last and most important philosopher in this Deleuzian line-up of great thinkers. Nietzsche's eternal return will be defined as a series of time, which is cut by a unique and tremendous event, namely 'the death of God [that] becomes effective only with the dissolution of the Self' (Deleuze

1994: 58). However, as will become clear, the eternal return does not only have a destructive and lethal impact, rather it manifests a positive and productive power. It carries the ungrounded and abandoned subject to a point of metamorphosis, when all its possibilities of becoming are set free. It liberates the subject not only from the rule of identity and law, but also from the form of the true and thus bestows it with the power of the false and its artistic, creative potential. As we will see in this section, the dissolved self becomes Nietzsche's aesthetic concept of the overman, who is capable of affirming difference and becoming.

It should be noted that Nietzsche never fully laid out his thought of the eternal return in his writings and that the existing interpretations in secondary literature vary to a great extent. What interests us here is solely Deleuze's reconstruction of the eternal return, which is considerably influenced, as we will see, by Pierre Klossowski's reading of Nietzsche.[18]

According to Deleuze, the thought of the eternal return is not to be understood as a return of the Same or the Similar. Rather, what passes the test of the eternal return is that which differs internally, simulacra or the dissolved self. The eternal return has to be seen as a test of selection, which banishes identity, that is, the identity of God, the identity of the world or the represented object, and the coherence of the self. Thus, the landscape of the eternal return is that of difference-in-itself, the irreducibly unequal, of metamorphosis or becoming. In Deleuze's words:

> Essentially, the unequal, the different is the true rationale for the eternal return. It is because nothing is equal, or the same, that 'it' comes back. In other words, the eternal return is predicated only of becoming and the multiple. It is the law of a world without being, without unity, without identity. (Deleuze 2004: 124)

Therefore, in a first move, it is important to distinguish Nietzsche's eternal return from the conception of a 'return of the Same and the Similar' which is the essence of a cyclical conception of time. Thus, the ancient Greeks presupposed an identity or resemblance in general of all the instances that are supposed to recur. They regarded the recurrence of planetary motion, the uniform change of seasons and qualitative changes in things as laws of nature. According to Deleuze, Nietzsche's thought of the eternal return cannot be presented as a natural law and identified with the ancient Greek hypothesis of cyclical time.[19] First, he argues that as a connoisseur of the Greeks, Nietzsche could not have been ignorant of the Greek hypothesis of time as a cycle. Thus, when Nietzsche insists that his thought of the eternal return is something effectively *new*, we have to take him seriously. Furthermore, Nietzsche is a thinker who is very much opposed to the notion of law. He would not have submitted to the simple notion of a law of nature. As textual evidence, one can adduce two passages in *Zarathustra*, where Nietzsche explicitly rejects the interpretation of the eternal return as cyclical time: (1) during the encounter between Zarathustra and the dwarf, the dwarf says, 'All truth is crooked; time itself is a circle', whereupon Zarathustra replies, 'Thou spirit of gravity! . . . do not take it too lightly' (Nietzsche 1936: 167); (2) on another occasion, Zarathustra rebukes his animals that they have already made a 'refrain' out of his doctrine of the eternal return. In a refrain, the same always returns, but apparently Zarathustra does not want the eternal return be understood as a refrain (see Nietzsche 1936: 234).

In what way, then, is the eternal return different from a natural cycle, a cycle of time? The crucial issue is that the eternal return is *selective* and *creative*. It is selective with regard to desires or thought and with regard to being. Let us first consider its mechanism of selection with regard to desires. If the doctrine of the eternal return is stated in terms of an ethical rule, it becomes a sort of Kantian imperative: 'Whatever you will, you have to will it in such a way that you will its eternal return.' That which is expelled by the selection test of the eternal return is all instances of willing that want a thing only for once: 'only this one time'. In an unpublished note contemporaneous with *The Gay Science*, Nietzsche says that it does not matter whether the act I am about to perform is informed by ambition, or laziness, or obedience, if only I re-will my present action again, for innumerable times.[20] The eternal return excludes any half-hearted willing and affirms the extreme forms: it separates an active, superior will, which wants to enact its force to its highest power, from a reactive, gregarious will. Moreover, the eternal return not only excludes any 'half-desires' but also any reactive mode of being (such as the passive small man or last man possessed by a will to revenge). Furthermore, it is necessary to note that the superior forms of willing and being do not simply pre-exist the eternal return, but are *created* by the eternal return. In other words, the eternal return is more than a 'theoretical representation' (Deleuze 1994: 41) or ethical rule to be made a self-chosen principle of life. Rather, it is a positive principle that actively creates the superior forms that pass the test of eternal return.

In his book *Nietzsche and the Vicious Circle* (1997), Pierre Klossowski offers an interpretation of the selective and creative power of eternal return. According to Klossowski's analysis, the thought of the eternal return jeopardises the subject's identity; it is an aggression against the apparently limited and closed whole of the subject. The reason for this is that the thought of the eternal return demands that I re-will myself again for innumerable times, but this demand makes me at the same time fall into incoherence. In relation to the codes of everyday society, I am a particular identifiable individual, *once and for all* determined by laws, contractual relations and institutions. The thought of the eternal return addresses me but at the same time demands my destruction as this particular identifiable individual. This is so because I have to re-will *all* my prior possibilities of being:

> All that remains, then, is for me to re-will myself, no longer as the outcome of these prior possibilities, no longer as one realization among thousands, but as a fortuitous moment whose very fortuity implies the necessity of the integral return of the whole series. (Klossowski 1997: 58)
>
> I deactualize my present self in order to will myself in *all the other selves whose entire series must be passed through*. (Klossowski 1997: 57; original emphasis)

Thus, the eternal return does not demand that I return the same as I am, 'once and for all' (this would amount to a 'bare repetition' in Deleuzian terms), but as a variation, a simulacrum, for an infinite number of times (this would be a repetition 'by excess, the repetition of the future as eternal return' (Deleuze 1994: 90)). The coherence of the subject is thus jeopardised. Nietzsche himself suffered the consequences of the thought of the eternal return: 'I am every name in history,'[21] 'Dionysus and the Crucified.'[22] In Deleuze's reading, which coincides with Klossowski's interpretation in this regard, 'the thinker, undoubtedly the thinker of the eternal return, is . . . the universal individual' (254). For Deleuze, the universal individual or the 'man without a name' (91) designates someone who has relinquished the well-defined identity of the subject with fixed boundaries, and affirmed the system of a dissolved self with all its processes of becoming.

The dissolution of the identity of the subject and the advent of a non-identical, dissolved self has become possible with the death of God. The cut or caesura in Nietzsche's eternal return coincides therefore with the symbolic event of the killing of God. In *The Gay Science*, Nietzsche describes the act of killing God as a deed that is almost 'too great for us', and yet we have done it ourselves. However, according to Nietzsche, the tremendous event has not yet reached the eyes and ears of men. That is, the absence of God, who hitherto guaranteed the identity of the subject by creating man in his own image, ruling him according to divine laws, and securing the immortality of the soul, has not yet become effective. The moment this happens, the identity of the subject will be destroyed. The future marks the time when the excessive event turns back against the subject, dispersing it in a discrete multiplicity of little selves, of egos with many names or, what amounts to the same thing, a universal ego with no name at all:

> What the self has become equal to is the unequal in itself. In this manner, the I which is fractured according to the order of time and the Self which is divided according to the temporal series correspond and find a common descendant in the man without name, without family, without qualities, without self or I, the 'plebeian' guardian of a secret, the already-Overman whose scattered members gravitate around the sublime image. (Deleuze 1994: 90)

The universal individual or man without name is thus to be understood as Nietzsche's overman. The overman is not another higher species of man, but a non-identical, a dissolved self, which is liberated from the judgement of God and open to intensive processes of becoming. Interpretations that regard the overman as 'an evolutionary product, rising higher – as man does relative to the worm – to some indeterminate evolutionary height from which he can look back, amused, at that from which he came' (Grosz 2004: 148), treat the overman as someone beyond man, a higher species that is not yet present. In our view, Deleuze's reading rather suggests that the overman is someone who is always beyond himself, that is, never identical with himself, and who allows for all possibilities of becoming, as Klossowski says, becoming stone, becoming plant, becoming animal, becoming star (Klossowski 1963: 223). Deleuze takes up this thought and states that the thinker of the eternal return 'is laden with stones and diamonds, plants "and even animals"' (Deleuze 1994: 254). Features of the overman can in fact be found in the artist or poet – in short, someone who is willing to undergo metamorphoses and to become-other in favour of an act or a work yet to come. As Deleuze explains in his concluding paper given at the Nietzsche conference in the Royaumont Abbey in July 1964:

> The overman very much resembles the poet as Rimbaud defines it: one who is 'loaded with humanity, even with animals,' and who in every case has retained only the superior form, and the extreme power. (Deleuze 2004: 125; translation modified)

Another suitable example besides the poet or artist might be the political subject, someone who engages in processes that not only demand a becoming-other, that is, an annihilation of the past self that he or she was, but that also put the existence of a future self at risk and thus leave the process of becoming open to success or failure. The ancient rhetorical practice of *parrhesia* can serve as an example here: *parrhesia* can be translated as 'the telling of the unvarnished truth' and specifies a type of discourse in which the speaker commits himself to a free and unbound speech and in doing this puts himself at considerable risk, including the risk of death.[23] The *parrhesiast* or 'truth-teller' cannot be defined in terms of a self-authoring subject, but must be understood as a split subject: through his words he constitutes himself as the one who speaks freely and who is willing to pay for it with his life. He forsakes the identity and securities of his past self, and projects an ideal future self that would find the approval of his listeners, but his project might just as well end in failure.

All these examples, the poet or artist and the political subject (for example, the *parrhesiast*) can be seen as instantiations of a dissolved self, or the overman in Nietzschean terms. Thus, the overman is a real possibility or even a present reality, if one thinks the thought of the eternal return and wills oneself through the *entire series of all the other selves*, that is, affirms all possibilities of becoming. What is expelled by the wheel of eternal return and its centrifugal force is only that which desperately clings to its identity.

V. Conclusion

Deleuze's account of the third synthesis of time involves different theories from philosophy, Greek drama theory and mathematics. It is important to note that Deleuze's method of mixing theoretical concepts is not to be conceived in terms of assimilating differences and blending one concept into the other. Rather, Deleuze maintains their heterogeneity and relates them to one another as differences. It can be regarded as a technique of montage operating by cuts commonly used in cinema. In his second cinema book, Deleuze analyses the time-image of modern cinema with the mathematical terms of incommensurables and irrational cuts (adding, however, the particular meaning of an irrational cut as an irreducible 'gap' and independent 'intensity'):

> The modern image initiates the reign of 'incommensurables' or irrational cuts: this is to say that the cut no longer forms part of one or the other image, of one or the other sequence that it separates and divides. It is on this condition that the succession or sequence becomes a series . . . The interval is set free, the interstice becomes irreducible and stands on its own. (Deleuze 1989: 277)

The technique of cutting, which Deleuze finds equally in mathematics and film, can perfectly be used to describe his own method of bringing together different heterogeneous theories and concepts.[24]

In this article we have gathered the different heterogeneous elements, from which Deleuze's third synthesis of time emerges. Starting with Kant, it was shown how he revolutionises the philosophy of time, first, by reversing the subordination of time to movement and uncoiling the cycle of time into a straight line; second, by introducing a fracture in the I through the form of time as a form of auto-affection. Deleuze adduces Hölderlin's interpretation of Oedipus to illustrate the impact that the condition of pure and empty time has on the subject. He also gains from Hölderlin the notion of the 'caesura', which distributes a past and a future that are non-coincident or non-symmetrical. The notion of caesura finds its mathematical expression in the notion of the cut, deployed by Dedekind in order to constitute a static and purely ideal conception of continuity. Deleuze, it was argued, makes use of Dedekind's notion of a static continuum in order to create a new notion of time, which has nothing to do with the empirical phenomenon of a continuous flux of moments, but on the contrary with the notion of an a priori static synthesis, which brings together divergent series of past and present moments and future becomings. The Kantian empty form of time, which never changes, thus becomes a static synthesis of time constituted by an irrational cut. For Deleuze, the irrational cut indicates an intensive depth, an outside or virtual event, which breaks with the empirical continuation of space and time. The primary example of such a virtual event is the death of God, which Nietzsche intrinsically connects with a dissolved self. Deleuze argues that Nietzsche's eternal return is Kantianism carried to its highest and most radical form. The Kantian empty form of time produced the split subject or empirico-transcendental doublet, but Kant lost the schizophrenic momentum and reintroduced a new synthetic identity. For this reason, Deleuze resorts to Nietzsche, who maintained the dissolved self and liberated it from the rule of identity and law altogether. Faced with the death of God, the Nietzschean subject becomes ungrounded and free to run through all its possibilities of becoming: it is the universal individual or overman.

The Nietzschean thought of the eternal return is indispensable for Deleuze's third synthesis of time, which introduces a cut or caesura into consciousness and produces the system of a dissolved self. Deleuze thus ties together the themes of the Kantian empty form of time and the Nietzschean eternal return, that is, the straight line and the wheel with its centrifugal force.

This is how the story of time ends: by undoing its too well centred natural or physical circle and forming a straight line which then, led by its own length, reconstitutes an eternally decentred circle. (Deleuze 1994: 115)

Notes

1. A substantial portion of this article also appears in Chapter 4 of my book *Conditions of Thought: Deleuze and Transcendental Ideas* (Edinburgh University Press, forthcoming 2013). I gratefully acknowledge the editor's permission to republish this material.
2. See Gilles Deleuze, 'On Four Poetic Formulas which Might Summarize the Kantian Philosophy', Preface to *Kant's Critical Philosophy* (Deleuze 1984).
3. In fact, Deleuze contracts here two quotations by Rimbaud from different letters. In his letter to Georges Izambard from 13 May 1871, Rimbaud says: 'Je est un autre. Tant pis pour le bois qui se trouve violon' (Rimbaud 1975: 113), and in his letter to Paul Demeny from 15 May 1871: 'Car Je est un autre. Si le cuivre s'éveille clairon, il n'y a rien de sa faute' (Rimbaud 1975: 135).
4. See Borges 1962: 86–7.
5. Hölderlin's *Oedipus* raises the following problem: if Sophoclean tragedy already involves a thinking of the pure and empty form of time, of a time of abandonment by the gods, then the Kantian revolution, that is, the breaking with ancient cyclical time and the unrolling of time as a straight line, had already been performed in Greece two thousand years before Kant. This view fits well with Deleuze's thought that Ideas are virtual and that they become actualised in different places at different times. We should therefore read Deleuze's claim that Kant revolutionised the ancient cyclical model of time not simply in chronological terms, that is, in terms of historical development, but as the actualisation of a virtual Idea, which is to say that the movement is not going from one actual term to another, but from the virtual to the actual. We owe this suggestion to Nick Midgley.
6. See also Kant 1998: A144/B183 and A182/B224–5.
7. In this lecture course on Kant, Deleuze uses the term 'limit' in two different senses: in a first sense, limit means 'limitation' and refers to the ancient cyclical conception of time according to which time limits something, that is, measures the movements of celestial bodies. Limit in a second sense is said to be characteristic for the linear conception of time, time as pure and empty form. According to Deleuze, limit designates an internal limit, which he describes as 'that towards which something tends'. This definition matches with the mathematical definition of limit during the early geometrical phase of infinitesimal analysis, which depended upon theorems stating the continuous and infinite approximation of magnitudes toward a limiting value (Deleuze 1978b).
8. In his recently published book on Deleuze's philosophy of time, James Williams also renders 'caesura' as 'cut'. However, he does not refer to the mathematical definition of 'cut', which would have helped him in answering the question why the third synthesis is said to involve 'a formal cut, when in fact it is deduced from a somewhat narrow dramatic event (the appearance of a ghost to the Prince of Denmark)' (Williams 2011: 89).
9. It should be noted that both the rational numbers and the real numbers are infinite, ordered and dense number systems. The property of denseness means that between any two numbers there is at least one other number. Denseness is not continuity, as Bolzano mistakenly believed. The property of continuity,

which is attributed to the system of real numbers (but not to that of rational numbers), is precisely defined by Dedekind's method of cuts (see Kline 1972: 985).

10. I am indebted to Nathan Widder for drawing my attention to Russell's and Wittgenstein's critical remarks. For a comprehensive view of the mathematical debate on continuity, see Widder 2008: ch. 2, 'Point, Line, Curve', pp. 22–33.
11. For Russell, 'segments' are series of rational numbers whose terms become closer as the series progresses in order of magnitude. He defines real numbers as segments, and distinguishes segments that have limits and segments that do not (Russell 1919: 72). A rational real number, then, is defined as a segment whose terms converge to a rational limit (for instance, the series 0.49, 0.499, 0.4999, . . . converges to the rational number 0.5), while an irrational number is defined as a segment without limit (this shows that Russell still refers to the place of irrationals as 'gaps'). A fuller treatment of real numbers can be found in Russell 1903: chs 33 and 34. For a brief summary see Widder 2008: 27–9.
12. We do not claim that Deleuze refers to Russell or Wittgenstein; in fact, it is doubtful that Deleuze might have even known their criticism of Dedekind. But as will become clear, Russell's and, in particular, Wittgenstein's critical remarks are in a way quite close to Deleuze's modified interpretation of Dedekind.
13. By assigning to irrationals the characteristic of limits of convergent series of rational numbers, Deleuze seems to borrow from Dedekind's definition of irrationals as limits and the axiom that every series of rationals *must* have a limit – in Russell's words, Dedekind's postulation that an irrational limit had to fill the Dedekindian gap (Russell 1919: 71).
14. These two positions are not so much apart as they might seem: thinkers, such as the eighteenth-century philosopher Salomon Maimon and the Neo-Kantian philosopher Hermann Cohen, conceived differentials as both intensive magnitudes and intelligible laws of production.
15. Thus, James Williams rightly insists that Deleuze's model for the third synthesis of time cannot be the ordered line of time, and that the division produced by the caesura does not equal a thin logical point. In his own words: 'the caesura is an event and has a depth to it. It is not instantaneous but rather must be considered with its effect on the points before and after it. This is why the caesura implies a drama: it divides time such that a drama is required to encompass this division. This event-like and dramatic division is in contrast with the thin logical point and set account of the line of time where an arbitrary point is taken on a line and every point before it is defined as before in time and every point after as after in time. . . . This misses the process at work on Deleuze's thought and model.' (Williams 2011: 91).

    It is true that Deleuze's third synthesis of time cannot be reduced to the number line and the cut to a thin logical point. But it should come as no surprise that Deleuze makes use of Dedekind's idea of a 'cut' and 'static synthesis' without following him in everything he says. Deleuze certainly over-interprets the notion of cut, insofar as he equals it with the irruption of the virtual event (the unthought, the inexplicable, the incommensurable) and the fracture in the subject.
16. For instance, in his cinema book on the time-image, Deleuze explicitly connects Borges's 'labyrinth of time' with the Nietzschean eternal return, as both conceptions of time plunge into a depth that poses 'the simultaneity of incompossible presents, or the coexistence of not-necessarily true pasts' (Deleuze 1989: 131). Borges as well as Nietzsche substitute 'the power of the false' for the form of the true, and a line of time 'which forks and keeps on forking' (131) for the empty form of time.

17. As Nathan Widder argues, the third time-image is distinctly Nietzschean, insofar as it concerns the *series of time*, while the other two time-images, which Deleuze analyses, emphasise the simultaneous layers of time and the coexistence of relations, and are thus rather Bergsonian by nature (see Widder 2008: 48–9). However, all three time-images refer to virtual time and hence 'shatter the empirical continuation of time, the chronological succession' (Deleuze 1989: 155).
18. Suffice here the following references to Klossowski by Deleuze: Deleuze 1990: 280–301 (Appendix III); 1994: 66–7, 90–1, 95, 312, 331.
19. See for instance Deleuze 1994: 6, 241–3, 299.
20. See Nietzsche 1980: 505, 11[163]: 'My doctrine teaches: live in such a way that you must desire to live again, this is your duty – you will live again in any case! He for whom striving procures the highest feeling, let him strive; he for whom repose procures the highest feeling, let him rest; he for whom belonging, following, and obeying procures the highest feeling, let him obey. Provided that he becomes aware of what procures the highest feeling, and that he shrinks back from nothing. Eternity depends upon it.'
21. See Nietzsche's letter to Jacob Burckhardt, 6 January 1889 (Nietzsche 1969: 1351).
22. See Nietzsche's letters to Peter Gast, Georg Brandes and Jacob Burckhardt from Turin, 4 January 1889 (Nietzsche 1969: 1350).
23. Michel Foucault analysed the practice of *parrhesia* in six lectures given at the University of California at Berkeley in 1983 as part of his seminar entitled 'Discourse and Truth'. The complete text compiled from tape-recordings is published under the title *Fearless Speech*, ed. Joseph Pearson, Los Angeles: Semiotext(e), 2001.
24. I am indebted to Anne Sauvagnargues for pointing out this specific Deleuzian procedure of 'cutting theories together'.

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