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Spring 2007: The Major Works of Gilles Deleuze

FIFTH DAY LECTURE: 26 FEBRUARY 2007: CHAPTER 4 OF DR

Chapter 4 is the belly of the beast. Here Deleuze lays out what he means by Ideas. While he uses some concepts he pulls out of the history of mathematics, it's always important to realize that he's constructing a philosophical concept of the Idea. He begins by the contrast with Kant.

KANT AND IDEAS

Kantian transcendental Ideas or pure concepts of reason are produced by applying the form of the syllogism to the synthetic unity of intuitions under the direction of the categories (A 321 / B 378). Kant explains that this means we are after the "unconditioned" as the ground of synthesis of any given or conditioned object, as the ground for positing the "totality of conditions for any given conditioned" (A 322 / B 379). The Ideas (soul, world, and God) provide a focus for the understanding; they orient its use toward convergence in a unity of natural or moral laws. This is what Deleuze means when he says that Ideas pose a problem (DR 168 / 218).

Their transcendent use, that is, when we apply the categories to them in order to produce them as objects of knowledge, is only productive of paralogisms (soul) and antinomies (world and God); the only proper application of categories, or course, is in relation to the manifold of sensation.

With transcendent use ruled out, the only proper use of the Ideas is a "regulative" use. The regulative use of Ideas renders them "problematic," that is, immanent and transcendent at once. They are immanent in that Ideas provide a systematic unity to the use of the understanding, while they are transcendent in that our oriented research provides solutions that do not exhaust the Ideas. As Kant puts it, "no object adequate to the transcendental idea can ever be found within experience … it remains a problem to which there is no solution" (A 327-328 / B 384).

We see in Ideas the same three-fold structure we saw in the subject.

Recall from the “fractured I”: In Chapter 4 Deleuze poses three aspects of "sufficient reason," the undetermined, the determinable, and the determined. In Chapter 2's discussion of the third synthesis of time, we find that Descartes has two aspects: determination (I think) and undetermined existence (I am). Kant adds time as the form in which the undetermined is determinable.

Ideas are:
(1) Undetermined w/ regard to their object: no adequate object can be produced: problems remain transcendent to their solutions.
(2) Determinable w/ regard to objects of experience: their regulative use guides the understanding in producing objective knowledge.
(3) Bearing Ideal of infinite determination w/ regard to concepts of understanding: the focal point of synthetic unity of the manifold of uses of the understanding.

They thus represent three aspects of the Cogito:
(1) "I am" as indeterminate existence.
(2) Time as the form under which this existence is determinable.
(3) "I think" as determination.

Because of this correlation, Deleuze will say that Ideas are the differentials of thought swarming in the fractured I.

Deleuze's criticism of Kant is that he stayed at level of conditioning without attaining that of genesis. The 2nd and 3rd aspects of Ideas remain extrinsic: Ideas are not determinable in themselves, but only

in relation to objects of experience; likewise, they do not have the Ideal of determination in themselves, but only in relation to concepts of the understanding. Furthermore, the three aspects are incarnated in distinct Ideas: the self as undetermined; the world as determinable; and God as the ideal of determination.

Differentials (170-176 / 221-228)

A. "Treasures" in "pre-scientific" (prior to set theory) differential philosophy
    1) Overview: dx as the Idea, with its threefold structure (sufficient reason):
        a) undetermined: principle of determinability (dx, dy): "quantitability"
        b) determinable: principle of reciprocal determination (dy/dx): "qualitability"
        c) determined: principle of complete determination (values of dy/dx): "potentiality"
    2) discussion of each aspect:
        a) dx as undetermined (Bordas-Demoulin)
            (1) continuity and its cause forms element of "quantitability"
            (2) fixed quantities of intuition (quantum)
            (3) variable quantities in form of concepts of the understanding (quantitas)
        b) dy/dx as reciprocally determined (Solomon Maimon)
            (1) In qualitative form, as "pure element of qualitability"
            (2) As genesis: Solomon Maimon's critique of Kant:
                (a) Kant doesn't reach genesis, but stays w/ conditioning
                (b) Need to think Ideas as overcoming duality of concept and intuition
                (c) Reciprocal synthesis of diff. relations: source of production of real objects
                (d) Triple genesis
                    i. Qualities: differences btw real objects of knowledge
                    ii. Space and time: form of conditions for knowledge of differences
                    iii. Concepts: form of conditions for the difference btw knowledges
        c) Complete determination (values of dy/dx): pure poteniality (Wronski)
B. Ideas as concrete universals:
    1) Ideas as distinguished by their distribution of singularities
    2) Singularity itself (the Idea as singular, as unique) as the "pre-individual" [i.e., the field of individuation}

DIFFERENTIALS.

I've put this together from:

Aden Evens, "Math Anxiety," *Angelaki* 5.3 (December 2000): 105-115.

Simon Duffy, "The Mathematics of Deleuze's differential logic and metaphysics," in Simon Duffy, ed., *Virtual Mathematics: The Logic of Difference* (Manchester, UK: Clinamen Press, 2006): 118-144.

Morris Kline, *Mathematics for the Nonmathematician* (NY: Dover, 1967).

P. Lutus, “A Calculus Primer,”
www.arachnoid.com/calculus/index.html

INTRODUCTION

Deleuze finds something in pre-modern calculus (the differential seen in terms of infinitesimals) that will help him think his “philosophy of difference.” He knows that modern mathematics has abandoned this way of doing calculus (it has abandoned infinitesimals in favor of finite quantities and it has abandoned geometry in favor of arithmetic), but he’s after a way of thought, not a means of calculation.

CALCULUS BASICS

Calculus is a means of calculating functions representing physical processes. It began in the 17th century by Newton and Leibniz. Both used analytic geometry (putting geometrical figures [lines and points] into Cartesian co-ordinate system so you can use numbers and algebra to calculate), but had different assumptions about the differential, as we will see in a minute. Later in the 19th century, Weierstrass developed purely arithmetic means to replace geometry as the basis of calculus.

Definitions:

Function: a rule or means of relating input to output.

Change = difference of one variable relative to a fixed point. E.g., the change in position of something is the difference in distance relative to the starting point.

Average rate of change = difference in one variable divided by difference in another variable. E.g., average velocity = rate of change of position relative to time, that is, difference of position (dy) divided by difference in time (dx). For instance, 20 miles per hour.

Instantaneous rate of change = rate of change at one instant, that is, dy / dx when y and x have values, but dy = 0 and dx = 0. E.g., the velocity of a cannonball hitting a wall (the position is no longer

changing and no time elapses at the moment of impact, although the point of impact has a space value and a time value).

Acceleration = instantaneous rate of change of velocity over time.

Since calculus historically developed as means of calculating velocity and acceleration of moving bodies, we'll stick with space as dependent variable (y) and time as independent variable (x).

"Derivation" or "taking a derivative" or finding "differential relation" = finding instantaneous rate of change [of position relative to time] = process of acquiring a velocity from positions.

> A velocity is computed by taking the difference between two positions and dividing by the difference in time (dy / dx). The instantaneous rate of change is geometrically represented as finding tangent to a curve.

The opposite procedure is "integration," the process of obtaining the function from the derivates, that is, determining the function which relates two variables from knowing the instantaneous rate of change of one variable relative to another. In this way, for example, we can find the function that will allow us to calculate a position from velocities (or a velocity from acceleration).

> A position for a specific time is computed by summing all intermediate velocities to a starting position. Integration is geometrically represented as finding the area under a curve by addition of areas of ever smaller rectangles ("the method of exhaustion" is the name of an older method).

HOW TO TAKE DERIVATIVES:

Derivatives allow us to calculate the slope of the tangent to a curve (which represents some function of a real system). Finding the slope of the tangent allows us to know velocity, growth, ground slope, etc. as an instantaneous rate of change.

But since a tangent by definition only touches the curve at one point, how do we find the slope, since it takes 2 points to define a line? We

pick another point on the curve and find the slope of the line through those two points. We want to pick a point an arbitrarily short distance away. This will give us the slope of the line as close as we want to the tangent. We represent this distance from x as “dx approaching zero.”

This tangent method is Newton’s, who said the interval was always finitely small. A big difference here in this way of doing limits or the “approach to zero” is that Leibniz used the notion of an “infinitely small number” or “infinitesimal.” He thus had an arithmetic way of doing calculus versus Newton’s geometry. While both forms of calculus worked, the ontological status of the infinitesimal was questionable. While it was seemingly better to use arithmetic than geometry, the price of accepting “an infinitely small number” into your system was pretty high. The search for a way of doing limits using only finite means was underway.

INTERVALS AND LIMITS:

One of the most significant changes in the history of mathematics comes in the 19th century with the replacement of geometry by a rigorous or finitist arithmetic as the basis of calculus. Deleuze will call this struggle between the infinitist and finitist means “the metaphysics of the calculus” (DR 176).

As we have seen, calculus is all about the passage to a limit, finding ever smaller distances [staying finite as in Newton or reaching the infinitely small as in Leibniz] between points on a line to find the tangent to a curve (derivation) or ever smaller rectangles under a curve (integration).

Duffy: Weierstrass developed a purely arithmetic way of doing limits. That is, he eliminates all geometrical notions. A function is no longer a curve [motion of a point through co-ordinate space] but a set of ordered pairs of real numbers [input and output]. Weierstrass thereby surpassed both Newton’s geometry and Leibniz’s infinitesimals, though he in one sense came down on Newton’s side in affirming the finite rather than the infinite. [Much later, in the 20th century, the “non-standard analysis” of Abraham Robinson gave a rigorous foundation to, and hence rehabilitated, the infinitesimal.]

Evens: The modern understanding of the interval is no longer a geometrical gap, but is seen arithmetically as a range of values. A line approaches a point when, no matter how small an interval around the point you take, it still encloses the end of the line. This is the finitist definition of the limit: no matter how small the interval, there is some point in the sequence after which all the other points are contained w/in the interval. Thus each interval is finite, for there is always a smaller interval you can posit. Thus modern differentials are finite, that is, arbitrarily small quantities, like any other quantities, only unspecified.

Thus, instantaneous rate of change (of dependent variable y relative to independent variable x) is represented geometrically as finding tangent to a curve, but arithmetically as the limit of the average changes of ever decreasing intervals.

CONTEXT: How and why does Deleuze use the notion of the differential relation?

Evens: 106: Deleuzean ontogenesis is determination of the undetermined (but determinable). [Vs. usual sense of genesis as finding a determined cause for a determined effect (107) .] Ontogenesis makes sense, which arises from “a puzzle being fit together … [from findin] what forces create just these tensions conflicts, and congruencies. Things make sense when connected to their problematic origins.” Each move changes conditions of future moves just as it changes the sense of previous moves, that is, how they will fit into the solution, the final sense.

108: Deleuzean Idea: must be “ideal cause of continuity” = dx. “The problem creates a kind of continuity … that connects its cases of solution … but the various parts of the solution are heterogeneous.”

“Deleuze discovered in archaic interpretations of the differential a … power to problematize” [i.e., to be ideal cause of continuity as problematic Idea unifying its cases of solution].

The differential is a way to think difference that is not negative, oppositional, contradictory, i.e., not subordinated to identity. It enables us to think identities as emergent from fields of differences.

For instance, Leibniz helps us think conscious perception as emergent from field of tiny unconscious perceptions: the micro-sounds of the waves coalescing into the murmur of the ocean.

DIFFERENTIAL RELATIONS

Duffy is commenting on Deleuze's lecture on Spinoza from 17 Feb 1981 on webdeleuze.

Differential calculus = calculating derivatives or differential relations (finding instantaneous rate of change or finding tangent to a curve) Differentials "subsist as a relation" or "exist as vanishing quantities." Even though $dy/dx = 0/0$, $dy/dx \neq 0$.This is a difficult thought, a pure relation, or a relation independent of its terms.

Deleuze: $dy/dx = z$. One comprehends that $dy/dx = z$, that is to say the relation that is independent of its terms will designate a third term and will serve in the measurement and in the determination of a third term: the trigonometric tangent. In this sense I can say that the infinite relation, that is to say the relation between the infinitely small, refers to something finite. The mutual immanence of the infinite and relation is in the finite…. I would say that the differential relation dy/dx tends towards a limit, and this limit is z, that is to say the determination of the trigonometric tangent. We are inside an extraordinarily rich knot of notions. Then afterward the mathematicians will say no, it's barbaric to interpret infinitesimal calculus by the infinitely small, it's not that.

DELUEZE'S REVERSAL: Evens shows how Deleuze reverses the usual modern procedure and generates number from the differential (rather than finding differential through arithmetized limit procedure). The differential is seen in Evens' words as a "substantive and positive infinitesimal … a movement of zero away from itself … a torsion that inflects the point x" (111).

The Deleuzean differential, dx, is undetermined, though pointing to its determination by another differential, dy. This is "reciprocal determination." The function then is the *result* of the progressive determination of the differential relation (dx / dy). (Recall that we are usually taught to find the derivation *from* the function.)

Evens: The differential relation relates x to y in “depth … condensing the quality, the character of the entire function into every point … generates not the *value* of the function, but its *behavior*”(111-112).

Many functions are marked by critical points which indicate qualitative changes in behavior of the system, represented by singularities where the direction of the curve changes. By knowing the “number and distribution” of singularities we can determine the kind of function. [the kind of function helps us divide the world by affect: that is, by the quality of behavior of which the system is capable.]

Duffy: “a power series operates at each distinctive point by successively determining the specific qualitative nature of the function at that point” (129).

II.Infinitesimals (176-182 / 228-235)

A. Finitist (set theory) vs infinitist readings of the calculus: the "metaphysics of the calculus"
   1) Seeing the differentials as infinitesimals, as infinitely small, is representational
   2) Carnot and Leibniz lead us to think how problems resist being absorbed by solutions
      a) For instance, look at difference btw integral curves and vector field
         (1) Integral curves: specification of singularities
         (2) Vector field: existence and distribution of singularities
      b) Thus real vs fictive distinction doesn't hold for differentials, which are problematic
      c) Neither does distinction of infinite vs finite representation
   3) Thus the differential element is "play of difference as such"

B. Rather than metaphysics, we should speak of a dialectics of the calculus
   1) "Dialectic" here refers to problems as distinct from mathematical solutions
   2) Lautman: three aspects of a problematic or dialectical Idea
      a) Difference in kind from its solutions
      b) Transcendence in relation to its solutions
      c) Immanence in the solutions

C. MATHEMATICS IS ONLY ONE FIELD OF SOLUTIONS FOR DIALECTICAL IDEA
   1) Dialectical Idea has also physical, biological, psychical or sociological solutions
   2) Differential calculus is not the only mathematical expression of problems
      a) Method of exhaustion
      b) Analytic geometry
      c) Abel / Galois group theory: relates form of problem to field of possible solutions
   3) "what matters to us is [how] … dialectical problems, their mathematical expression, and the simultaneous origin of their fields of solvability are related"

D. BUT, DIFFERENTIAL CALCULUS CAN BE A SORT OF *MATHESIS UNIVERSALIS* OR "ALGEBRA OF PURE THOUGHT"
   1) Each engendered domain incarnating dialectical Ideas possesses its own calculus
   2) "Herein lies the adventure of Ideas"

III.Ideas as multiplicities (182-191 / 236-247)

A. Multiplicity as a substantive
   1) Genealogy: Riemann / Husserl / Bergson
   2) Avoids distorted oppositional dialectic of One-Many
   3) "Everything is a multiplicity in so far as it incarnates an Idea"

B. DEFINITION OF IDEA: "an n-dimensional, continuous, defined multiplicity"
   1) Dimensions = variables or co-ordinates upon which a phenomenon depends
   2) Continuity = set of relations btw changes in these variables
   3) Definition = elements determined by these relations: no change w/o change in multiplicity

C. Three conditions for speaking of a multiplicity; these reconcile structure and genesis
   1) Elements must not posit identity; must be indeterminate, pure difference
   2) Elements must be only reciprocally determined by relations
      a) Relations are non-localizable ideal connections
      b) No reference to higher order space
   3) Multiplicities are actualizable (static genesis as correlate of passive synthesis)
      a) Relations actualized as "diverse spatio-temporal relationships"
      b) Elements actualized in a "variety of terms and forms"

D. Examples of Ideas as multiplicities
   1) Atomism as a physical Idea (Epicurus / Lucretius)
   2) The organism as a biological Idea (Geoffroy Saint-Hilaire)
   3) Society as an Idea (Marx)

E. Characteristics of Ideas
   1) Complexes of coexistence: relation of Ideas: "perplication"
      a) Objectively made and unmade
      b) Varieties which include in themselves sub-varieties
         (1) Vertical: ordinal varieties according to nature of elements and diff. relations
         (2) Horizontal: characteristic varieties:
            (a) degrees of diff relations
            (b) distribution of singularities
         (3) Depth: axiomatic varieties:

DS: White light is still a universal, but a <u>concrete universal</u>, and not a genus or generality. The Idea of color is thus like white light, which 'perplexes' within itself the genetic elements and relations of all the colors, but which is actualized in the diverse colors and their respective spaces. Similarly, the Idea of sound could be conceived of as a white noise, just as there is also a white society or a white language, which contains in its virtuality all the phonemes and relations destined to be actualized in the diverse languages and in the remarkable parts of a same language.

   2) Problematic / inessential / evental / affectional / accidental rather than essential
      a) The question "what is X?"
         (1) Plato and the aporetic dialogues
         (2) Hegel
         (3) God as locus of combinatory of abstract predicates is always the answer
      b) D's preferred questions: "how much?" "how?" "in what cases?" "who?"

3) Evental:
    a) Conditions of a problem imply ideal events (sections, ablations, adjunctions)
    b) Again, the "ontological difference" between
        (1) Existence and distribution of singularities in Idea (differentiation)
        (2) Specification of singularities in solution-curves (integration)

F. Procedure of vice-diction
1) Task of thought = description of multiplicity / Idea
    a) Evaluation of what is important and not
    b) Discerning distribution of singular and regular points
        (1) Stupidity = confusion of important and unimportant
        (2) Different kinds of singularities
            (a) Ordinary singularities: convergent series
            (b) Distinctive singularities: divergent series
2) Two procedures of vice-diction: love and anger
    a) Specification of adjunct fields: progressive determination of conditions
    b) Condensation of singularities: make solution explode in revolution into actual
3) NB: no metaphors, but categories of the dialectical Idea
4) Schelling vs Hegel

DELEUZEAN IDEAS

Dan Smith: In *Difference and Repetition*, Deleuze develops his general theory of problematic or differential multiplicities, whose formalizable conditions can be briefly summarized as follows.

(1) The elements of the multiplicity are merely “determinable”, their nature is not determined in advance by either a defining property or an axiom (e.g., extensionality). Rather, they are pure virtualities that have neither identity, nor sensible form, nor conceptual signification, nor assignable function (principle of determinability).

(2) They are nonetheless determined reciprocally as singularities in the differential relation, a “non-localizable ideal connection” that provides a purely intrinsic definition of the multiplicity as “problematic”; the differential relation is not only external to its terms, but constitutive of its terms (principle of reciprocal determination).

(3) The values of these relations define the complete determination of the problem, that is, “the existence, the number, and the distribution of the determinant points that precisely provide its conditions” as a problem (principle of complete determination).

(4) These three aspects of sufficient reason, finally, find their unity in the temporal principle of progressive determination, through which the problem is resolved.

So we have the criteria for Deleuze's Ideas: they must be undetermined, determinable and bearing an Ideal of determination. They are transcendental, but they do not provide the conditions of

possibility of objects of experience, but the conditions of the genesis of real objects.

An Idea is a set of differential elements, differential relations, and singularities, what Deleuze calls a "multiplicity." Ideas structure the intensive processes that give rise to the behavior patterns of systems, and they mark the thresholds at which systems change behavior patterns. In a word, the virtual Idea is the transformation matrix for material systems or bodies. Bodies are determined "solutions" to the "problem" that lays out the manifold options for incarnating bodies of that nature.

As we have seen, singularities are turning points of systems; they are remarkable points as opposed to ordinary ones. This mathematical sense of singularity should be distinguished from the logical sense of singularity in which the unique is distinguished from the generic. We can combine them by saying that a mathematical singularity indicates a threshold whereby a logically unique or singular system changes behavior patterns.

Let me give you an example from the world of sports. Deleuze talks about the physical Idea (atoms in Lucretius), the linguistic Idea (phonemes as differential) and the social Idea (Marx).

Let's take the Idea of football games. Or better, let's start with a given, American football. What is the Idea that conditioned the genesis of American football? Well, it would be a multiplicity of differential elements, differential relations, and singularities. The differential elements would be the players, the field, and the ball. They are differential elements because they are defined only in relation to each other. A prolate spherical of pigskin leather is only a football in relation to the players, who are only players when the entertain a certain relation to each other and to the ball, and of course, to the field, which in turn. The differential relations are what the players are able to do with the ball and with each other. They are differential in that they are relations of change in the elements: how they are able to move, to advance and retreat. And these relations are strewn with singularities, or sensitive points: when the ball moves between players across a certain threshold of the field, a touchdown or field goal is scored.

But American football is only one actualization of this Idea. Changes in the elements, relations and singularities will change the game. Forbid the forward pass and blocking and you have rugby (which itself has two species, rugby league and rugby union). Make it a completely savage festival and you have either Gaelic or Australian rules football. Restrict the handling of the ball to the goalkeeper, change the shape of the goal and the field, install a penalty area around the goal and you have association football or soccer.

Now Ideas shade off into other Ideas. They are "perplicated." They are "objectively made and unmade according to the conditions which determine their fluent synthesis" (DR 187). Move soccer inside to a wooden court and require the players to dribble (but only three times) and you have team handball. Elevate the goal, make it circular, and allow as much dribbling as you want (but only from on top of the ball and only with one hand) and you have basketball. And so on.

What have we done? It's important to see first of all that we have NOT established a finite set of necessary and sufficient conditions for membership in a class: what are the criteria for identifying football games? "Ideas are by no means essences" (187).

Instead, we have gone from an actualization to its conditions of genesis in a multiplicity ("vice-diction"), and then experimented with the singularities of the Idea: if we fiddle around with them, do we get a different football game (differenciation), or even a different kind of ball game (differentiation)? "The problem of thought is not tied to essences but to the evaluation of what is important and what is not, to the distribution of singular and regular, distinctive and ordinary points" (189). And stupidity is "defined above all by its perpetual confusion with regard to the important and the unimportant, the ordinary and the singular" (190).

IV. Ideas and the differential theory of the faculties: learning and the question (191-200 / 247-258)
- A. The real contrast is not that btw structure and genesis but btw Idea and representation
  - 1) Learning as meshing of singularities
  - 2) "To what are we dedicated if not to problems which demand of us the very transformation of our body and our language?" (cf. E 165)
  - 3) Again, the "tracing method": knowledge is pegged to propositions / solutions
- B. Ideas are not limited to one faculty (cf. E 146)
  - 1) Ideas and the normal vs. transcendent object of faculties
    - a) Linguistic: speech vs. poetic usage

b) Society: sociability vs. revolution – freedom
c) Psyche: imagination vs. phantasy
d) Biology: vitality vs. monstrosity
e) Aesthetic: sensibility vs. sign
2) Discordant harmony: transmission of violence (= "para-sense")
3) Two definitions of learning (cf. E 164-165)
a) Penetrating an Idea = "para-sense"
b) Raising a faculty to its transcendent exercise = "paradox"
4) Thought as a particular faculty
a) At extremity of fuse of violence in faculties: thought as ultimate origin of Ideas
b) Ideas as "differentials" of thought, as the "unconscious" of pure thought
c) Thought related to the fractured I of a dissolved Cogito

C. Renaissance of ontology in contemporary philosophy and the question-problem complex
1) The intentionality of Being par excellence
2) The ontology of the question
a) Silences all empirical responses which purport to repress it (Job and absurdity)
b) Puts into play (*mettre en jeu*) questioner and question (Oedipus and enigma)
c) Non-being as the being of the question (Odysseus and philosophical odyssey)
3) Insufficiency of this ontology:
a) Questions must develop into problems in Ideas (Proust and art)
b) Teleology of thought
(1) Departure from hypothesis or proposition of cness affected by uncertainty
(2) Arrival at "eminently moral apodicticity or imperative"

D. Deleuze's alternative: thought moving from the problematical to the question
1) Problem does not = hypothesis
2) Questions express relation btw problems and imperatives (of "adventure") from which they proceed
a) Model of the divine game, the "dice throw": affirmation of chance
b) Ontology is the dice throw, the chaosmos from which the cosmos emerges
(1) In other words, the dice throw is two-fold process of difference
(a) differentiation w/in Ideas
(b) differenciation as actualization
(2) The dice throw is point at which thought thinks unconsciously
(a) Ideas enter and leave only by the fracture in the I
(b) Thus "another always thinks in me"
3) This dissolution of subject / affirmation of chance = Nietzsche's will-to-power

V.Ideas and repetition: critique of the negative (200-208 / 258-269)

A. The origin of the question in repetition
1) Repetition of the dice throw can still affirm all of chance in each throw
2) Clothed repetition and reprise / condensation / emission of singularities
3) Heidegger / Nietzsche: "Being is itself repetition"

B. Status of the negative
1) The non-being of the problematic is not negative
2) The negative is an illusion clinging to propositions
3) Effective critiques of negative
a) Must denounce equation of opposition and limitation
b) Must be conducted on basis of Idea

C. Multiplicity is the key
1) For example, the linguistic Idea
a) Differential elements = phonemes
b) Differential relations determining these elements
c) Singular points assumed by these determined elements
d) Problematic nature: language as multiplicity, as set of problems
e) Unconscious / virtual character of elements and relations

f) Actualization as differenciation
2) But linguists constantly speak in terms of negation and opposition
a) Saussure and Trubetzkoy
b) Versus Gustave Guillaume: principle of differential position

D. Genesis of the negative as objective or transcendental illusion
1) Negative results from focus on propositions
a) Isolated from their genetic conditions
b) Ignoring structure / genesis of Ideas as differentiation / differenciation
2) First determination of the negative: the shadow of the problem
a) The falsification that is the negative doubles the actualization
b) Problems are always reflected in false problems
3) Second determination of the negative: objective field of the false problem
a) Natural object of social consciousness re: value = fetishized commodity
b) Transcendent object of faculty of sociability = revolution
4) Practical struggle: never by negation, but by difference / affirmation

VI. Ideas and virtuality (208-214 / 269-276)

A. Reality of the virtual
1) Must be defined as "strictly a part of the real object – as though the object had one part of itself in the virtual into which it plunged as though into an objective dimension"
2) The reality of the virtual is structure: differential elements, relations, singularities
3) Double process: reciprocal / complete determination = completely determined virtual
a) Complete determination of virtual is only ideal part of object
b) Virtual participates with other parts of objects in Idea, but does not form whole

B. The "second part of difference": differenciation = actualization, constitution of solutions
1) Complex notion of differen*t/c*iation:
a) Duality of object (virtual / actual)
b) Non-resemblance: "two unequal odd halves"
2) Differentiation has two aspects: varieties of relations and singular points
3) Differenciation also has two aspects:
a) Qualities and species actualize the varieties of relations
b) Parts and organs actualize the singular points
4) Virtual space and virtual time
a) *Diaphora*: virtual space defined by singularities subtends differences in quality
b) Progressive determination: virtual time: determines rhythms of actualization

C. Danger of confusing the virtual and the possible
1) Existence:
a) Produced by virtual time and space of real Idea
b) Not a brute leap from possible
2) Virtual refers to pure multiplicity of Idea, not to identity in the concept
3) Virtual does not resemble actual as possible resembles real (Bergson)
a) Thus, actualization or differenciation is "always a genuine creation"
b) Actualization creates divergent lines corresponding to virtual multiplicity
c) Diff and rep in virtual ground actualization, differenciation as creation
4) Leibniz oscillates re: respecting difference btw virtual and possible
a) Leibniz speaks of Ideas as virtual multiplicities
(1) Made of differential relations and singular points
(2) Apprehended by thought in a stupor, swoon, etc.
b) However, the world in which Ideas are actualized is a possible world
5) Leibniz's remarks about the distinct-obscure are crucial
a) Descartes's "clear and distinct" is representational
b) Leibniz's remarks about the murmuring of the sea [virtual theory of perception]
(1) Clear – confused [Apollo]: apperception of sea noise:
(a) [Consciousness of whole object] is clear

(b) But also confused, as the little component perceptions are obscure
(2) Distinct – obscure [Dionysus]: little perceptions [of individual waves]
(a) Distinct because they grasp differential relations and singularities
(b) Obscure because these are not yet differenciated
i. Singularities condense to determine threshold of cness re: bodies
ii. This actualizes the little perceptions
iii. But in an apperception that is clear and confused

6) Remarks on style
a) Distinctness – obscurity is intoxication / philosophical stupor / Dionysian Idea
b) Clear – confused thinker (Apollo) needed to think Dionysian Ideas?
c) Two languages aiming at divergent exercise of faculties: disparity of style

VII. Transition to Ch 5: Differenciation as actualization (214-221 / 276-285)

A. Spatio-temporal dynamisms: actualizing / differenciating agencies
1) Hidden by the constituted qualities and extensities
2) Example of embryology:
a) Dynamic of egg's morphogenesis implies virtual Idea
b) Analysis of Baër shows:
(1) There are things only an embryo can do / withstand [affects]
(2) There is no movement from general to specific, but a difference in kind
(a) Pure spatio-temporal dynamisms [embryo as "larval subject']
(b) Beneath constituted parts and qualities
(3) This is a progressive determination going from virtual to actual

B. Possibility of evolution: Cuvier vs Geoffroy Saint-Hilaire

C. "The entire world is an egg": dramas of actualization
1) Space corresponding to differential relations and singularities
a) Egg as theatre [of "cruelty"]:
(1) Roles dominate actors
(2) Spaces dominate roles
(3) Ideas dominate spaces
b) Multiple levels: genetics and ecology
2) Time: incarnate the time of progressive determination: differential rhythms
3) Thus dramatization is differenciation of differenciation
a) Qualitative: temporal response to a question: species
b) Quantitative: spatial solution to a problem: parts

D. Spatio-temporal dynamisms and Kantian schemata
1) Schema is indeed a rule of determination for time and construction for space
2) But unlike dynamisms, a schema does not account for the power w/ which it acts

E. Artaud and the theatre of cruelty
1) Becoming-embryo [= "death of subject"] not regression, but repetition
2) "Larvae bear Ideas in their flesh, while we do not go beyond representations of concepts"

F. Actualization takes place in three series: space, time, and consciousness
1) An "elementary cness" accompanies s-t dynamisms: threshold of condensed singularities of body
2) Repetition as power of difference and differenciation

G. The Idea:
1) Mathematics and biology are only "technical models"
a) Allow "exposition" of virtual and process of actualization
b) Two halves of difference: dialectical (virtual) half and aesthetic (actual) half
2) Chapter 5: grounding 3rd element of sufficient reason: potentiality and dramatization