Chapter 2 of *Time and Free Will*:

"On the Multiplicity of States of Consciousness: The Idea of Duration" John Protevi / LSU French Studies / Lecture notes: DO NOT CITE protevi@lsu.edu / www.protevi.com/john/Bergson/TFW2lecture.pdf

INTRODUCTION: DELEUZE'S READING OF TFW. Deleuze focuses on the notion of MULTIPLICITY in his reading of TFW in *Bergsonism*, barely mentioning Chs 1 and 3 (intensity and free will).

B will distinguish two forms of multiplicity, discrete and continuous.

D brings the notion of multiplicity back to Riemann in *Bergsonism* and in "Smooth and Striated" chapter of *ATP*. According to D, roughly speaking, a discrete multiplicity has an internal metric: that is, one of its units can serve as a measure for other units. For example, the first inch of a ruler can measure other parts of the ruler (this part is 1.5 inches long, this other one is 3.7 inches long, etc.) But a continuous multiplicity has to find its metrics (note the plural) elsewhere than in one of its [spatial] parts: for example, in the forces working within it.

D finds the confrontation of B and Riemann as the key to rehabilitating *Duration* and *Simultaneity*: even if B failed to be able to do the math, the real issue is the nature of multiplicities: the qualitative multiplicity of duration has to be distinguished from the discrete multiplicity of space. (In *TFW*, this distinction is put in terms of inner psychological states vs. external space, but later in *MM* and *CE* the notion of "ontological duration" and multiple durations makes this more complicated: in a formula, space becomes dilated duration, while cness becomes concentrated duration.)

For commentary on D and Riemann, see Plotnitsky in *Between Deleuze and Derrida*. See also Smith, Durie and Plotnitsky essays in *Virtual Mathematics*.

Multiplicity is not the multiple as a predicate of the one (one thing considered as having multiple aspects), nor is it a synthesis of the one and the multiple, as we see in the first paragraph of Ch 2, where number is defined as synthesis of the one and the multiple, that is, a unification of a multiplicity of parts that can be considered in isolation.

More precisely, discrete multiplicity is numerical, but continuous multiplicity is not. The key is that continuous multiplicities are both continuous and heterogeneous. That means they change their nature (their genus) when they divide. That means that each "indivisible" stage in their unfolding process needs its own measure.

This will be key to D's notion of ethics vs morality. Morality has one (abstract) standard which is applied from above, crushing the singularity of concrete situations. [Just as psychoanalysis crushes the singularity of desiring-production by applying Oedipus.] In other words, it treats life as a discrete multiplicity: there

is one unit internal to the multiplicity that can measure all other parts of the multiplicity. The key is the spatial notion of "part" which ensures the homogeneity of the thing: moral situations differ only in degree. Ethics, OTOH, requires the concrete analysis of the affects generated in encounters of bodies. Thus its metrics are plural and generated on the spot, and must be evaluated on the spot in the full concrete singularity of the situation. In my Schiavo paper, I argue that this is what should ground the liberal notion of the right to privacy, rather than sovereignty-based notions. IOW, D is a full-fledged particularist in ethical theory.

Discrete multiplicity	Continuous multiplicity
Space / impure, homogeneous time	Pure duration
Exteriority	Interiority
Simultaneity	Succession
Juxtaposition	Fusion
Order	Organization
[Homogeneity]	Heterogeneity
Quantitative differenciation	Qualitative discrimination
Difference of degree	Difference of kind or nature
Numerical	Irreducible to number
Discontinuous	Continuous
Actual	Virtual

Here is a chart drawn from D's *Bergsonism* comparing the two multiplicities.

1. NUMBER. B begins Ch 2 with a discussion of number as synthesis of one and multiple. A number is a unity grasped by a simple intuition, but it is also a gathering or summation of units. These units must be homogeneous: they have to be stripped of any qualitative difference. They are then laid out in an "ideal space," even when we are retaining their images in counting them in what is falsely thought to be "duration." After discussing provisional vs ultimate units and the discontinuity of number, B distinguishes process and product [62 / 83]. This is an important principle for B: *you cannot use the properties of the product to think the process by which the product is generated.* [Compare here Marx and the fetishism of commodities: we are fascinated by the properties of the product and cannot think the process of production.]

Generating a number is a process of unification. As a process, it is indivisible. That is, if you interrupt the process, you change it qualitatively. The generation of a sum of these units proceeds by discontinuity, since the units must have an edge to them to indicate when they start and stop [note the spatial language here]. So the indivisible act of thinking of any one number is represented as a point in space separated by an interval from another point. But once the number has been formed into a product, the points seem to have blended into a line. Thus we look back and are able to decompose the number according to any metric we want, not necessarily the original unit. In other words, the properties of the product [continuity and indefinite divisibility] are not the same as the properties of the process [discontinuity and indivisible units].

- 2. This way of thinking about number leads us to distinguish TWO FORMS OF MULTIPLICITY: the discrete / numberical (space) and the continuous / qualitative (duration). It is important not to confuse the continuity of a line with the continuous nature of duration. The difference is this: in duration we can have continuity and heterogeneity: that is, there is otherness in the process, but this otherness is qualitative difference, not quantitative difference. For instance, the later segments of a melody feel different from the earlier segments: the impression of the whole melody changes as it unrolls. But if we want to count parts of the melody (e.g., as notes), then we have to strip them of their qualitative difference and separate them. This means that we can only count parts of our conscious life by means of "symbolic representations" (e.g., notes on a scale). This counting of states of our inner life (which is analogous to counting positions of motion) leads us to the notion of *spatialized time* time as a "homogeneous medium," represented by a line.
- 3. The notion of spatialized, homogeneous time and its relation to duration takes us to KANT. In the Transcendental Aesthetic of the *Critique of Pure Reason*, Kant distinguishes space as form of outer intuition (all appearances spread themselves around us) from time as form of inner intuition (all appearances occur in ordered series). "Intuition" for Kant = immediate relation to an object. K distinguishes *empirical* intuition as immediate relation to object via sensation from *pure* intuition = space and time as unlimited single intuitions. As the form of inner intuition, time is itself a pure intuition. They are "pure" because they abstract from sense; they thus remain as individual wholes. Now determinate spaces and times are only parts of these wholes. And in a very important move for B, Kant shows that his notion of time as homogeneous medium is modeled on space. Kant says that time is represented as a line:

"And just because this inner intuition yields no shape, we endeavor to make up for this want by analogies. We represent the time-sequence by a line progressing to infinity ... and we reason from the properties of this line to all the properties of time, with this one exception, that while all the parts of the line are simultaneous, the parts of time are always successive" (A33 / B50).

Homogeneous or spatialized time is thus only the condition of our experience for Kant: it has no reality in itself: "if we abstract from the subjective conditions of sensible intuition, time is nothing" (A 36 / B 52). We could say that for B, time (as concrete, real time, as duration) is not the condition of our experience, but the very being of our experience. And this holds not just our experience, for *time as duration is reality itself for B*, as we will see in MM Ch 4.

We can note the analogy between B and Heidegger here. Both hold that the straightline model of time is an abstraction from concrete / primordial time, and that Kant was blocked from seeing this by his adherence to the straight-line model. The differ in that H gives Kant more credit than B does. In *Kant and the Problem of Metaphysics*, H will say that Kant has a more radical theory of time as "pure autoaffection," via a reading of the schematism of the transcendental imagination. According to H, the three modes of synthesis of the transcendental imagination – reproduction, recognition, and apprehension – produce the three dimensions of time. No need to go into detail here; we may come back to this in discussing MM.

4. Let's talk about B's account of the GENESIS OF THE MISTAKEN IDEA OF HOMOGENEOUS TIME. First, we have to understand that space in TFW is pure exteriority, that is, a range of juxtaposed points existing in pure simultaneity. Thus space is nothing but a series of snap-shots; the whole universe displays a certain arrangement of points and then "dies" and is "reborn" an instant later with a different arrangement of points. This is because any and all retention of past moments, as in the recognition of motion, occurs via mental synthesis. But remember as well, that inner life is a continuous multiplicity of mutually interpenetrating phases, unrolling in a qualitatively changing process. So if we think that we "count" our mental "states," it must mean that I have spatialized the states, separating them and placing them side-by-side in an ideal space that my mind's eye travels along. (At 79 / 107, B says that we have a hard time thinking like this, since external things seem to have their own duration. This is very important: B excludes this possibility here in TFW, but will affirm it in MM and CE.)

Now we get to the notion of "exchange." First, note that each of our phases of inner life "correspond" to the spatial position of a marker. We then get into the "habit" of distinguishing between the moments of our inner life, just as the strikes of a clock, or the footfalls of a passer-by, are distinguished. In other words, we refer to the external causes of a series of impressions, just as in Ch 1, B shows how we refer to the external cause of a single sensation (and falsely interpret as the change of a single "state" what is really the changing quality of our entire inner being). The exchange has a second step: the external phenomena benefit from this correspondence, as instead of merely being discontinuous "snap-shots" (we'll see this term in MM 1's account of pure perception), they are retained and arranged in a series. Where are they retained and arranged? In an "ideal space," that is, the homogeneous time we conceive of via our misinterpretation or "symbolical representation" of our inner duration. So we have three elements: real space w/o duration but only homogeneous juxtaposition; real duration w/o "space" but continuous interpenetrating heterogeneity; and finally, homogeneous time as the "symbolic representation" of duration. Thus homogeneous time is a mixture of duration and space, a product of "exchange."

An "exchange" between the act of moving and the space traversed by a completed motion sets up the paradoxes of Zeno and the Eleatics. Again, we see the theme of process and product, and not confusing the properties of each. The space traversed by a motion (the "product") is infinitely divisible, but the process is not: it is "indivisible" (that is, any division near a threshold would result in qualitative change).

The key is simultaneity, the "intersection of time and space." What we measure in scientific measurement is the distance between simultaneities, or better, the distance between the point in ideal space / homogeneous time we determine as the correspondence of our recognition [a psychological "act" or phase of the flow of our inner life] and a marker at point A [in real space] and the point in ideal space / homogeneous time we determine as the correspondence of our recognition and the marker at point B.

5. B gives us ANOTHER VERSION OF THE GENESIS OF ILLUSION OF HOMOGENEOUS TIME. Our sole reality is duration, so we can only arrive at homogeneous time through a process rooted in duration. Even such a misunderstood time is still a form of time, and can never arise from space, but only from our misunderstanding duration in terms of space. Let's look at counting again: we have to strip quality to get homogeneous units to count as juxtaposed in an "ideal space." This is number as product, the result of the two-fold process of qualitative stripping and juxtaposition in an ideal space. But if we attend to the very process of counting, what do we see? We see the retention and addition of units, such that each added unit changes the quality of the retained whole, its "rhythm." IOW, the process of adding three things feels gualitatively different from the process of adding two things: there's a different rhythm ("dum, dum, dum" does not equal "dum, dum"). THUS, there is a "quality to quantity," which we can see if we pay attention to the very process of counting. BUT, the product, the number produced, is that of three homogeneous units, that is "quantity without quality." THUS, if we transpose or "exchange" the properties of the product (discrete spatial homogeneity) with the properties of the process (continuous temporal heterogeneity) we get the hybrid of homogeneous time.