It did not take long before the numbers came easily when asked: seven times six, nine times eight, thirteen times ten, sixteen times fifteen: my father's adding machine and the metronome accompanying my piano playing, counting. 1 2 3 slowly start, 2 1 3 to build a machine. 3 2 1 let the machine. 3 1 2 do it to you. 3 it's easy now. 2 it's easy now. 1 it's easy now. In the operating room the ether drops onto the mask that covers my face. Counting backwards, falling, falling into the white light space of oblivion. Childhood memories, traumatic memories like the memories of my father who made a living as an accountant providing well enough for my mother, my sister and me. I can see his fingers. I can see them at the adding machine. I can see his fingers, my eyes fixed on them. Moving quickly and then slowing Over and across, up and down. The wedding band, by chance, hits and there is quick tick of sound as I go falling falling falling down.

* Materials used in this essay can also be found in an expanded form in *The User Unconscious* (University of Minnesota Press, forthcoming March 2018).
The groundless ground of a body being without relation or orientation being in an on-going dissociation as profound anxiety dances free in bodily memory. I have been following the work of Luciana Parisi. She is thinking about numbers. She, like me, is driven to understand numbers and counting at the nonhuman speeds of digitalised algorithmic architectures. Her search has led her to abstract works of mathematicians who make it possible to think that quantity is at the heart of all things, the dynamism of all things, all things lively, all things counting, all things self-measuring.

For Parisi, algorithmic architectures can no longer be thought of as exclusively aiming to predict or calculate probabilities for an optimal solution. Rather, they are real objects, spatiotemporal data structures, where calculation is “not equivalent to the linear succession of data sets” (2013:9). Instead, “each set of instructions is conditioned by what cannot be calculated: the incomputable in algorithms that discloses the holes, gaps, irregularities, and anomalies within the formal order of the sequence” (9). Algorithmic architectures are, ontologically speaking, real objects, spatiotemporalitys where the incomputable is immanent to them and the very condition of their on-going capacity to count. That is to say, like all objects, algorithmic architectures are irreducible to any other reality — either other objects or human subjects.

But be careful. Here, objects are no longer understood to be the objects of our common sense; rather, an object-oriented ontology is proposed in order to initiate a philosophical speculation on a potentiality that is other than human: the potentiality of all things. Object-oriented philosophers like Graham Harman argue that objects are irreducible to any other reality — to any other objects, including subjects. Nonetheless, objects are “multi-mediaic”, where the sensual qualities of objects, their colour, smell, shape, weight, are media, yet not mere channels or links in networks of objects (Harman, 2005: 70, 91–92). The qualities are the internal complexity of each object, making each object mediatc in that objects are lured to each other by their sensual qualities. The qualities cause objects to relate to each other and therefore to change each other. Causality is alluring. This is a “vicarious causality”, an aesthetic causality. (Harman, 2009: 169–234, 2007).

Or as Timothy Morton puts it: “Causality happens because this dance of non-identity is taking place on the ontological inside of an object” (2012a) Her red silk gown thrown on the bed and the white gardenias he gave her browning at the edge.

In my head, there is a sensing without touching, tracing the flowers of brownish red mahogany on the footboard of their bed. My fingers move from bead to bead, ten and then one alone, and then ten again: feeling without seeing, tactile before being visible, like a blind person’s object or thing, counting and praying, the Rosary. Hail Mary, full of grace. Hail Mary, full of grace.

But Parisi wishes to go further than these philosophers who are so attuned to the sensual, to the object’s qualities, to the mediating qualities of smelling, touching, hearing. She is sensing too, but at great speed, and I, like a sister, want to sense with her. I want to sense the great speeds that lead us to consider a calculative aesthetics, an aesthetic causality that is not only about sensual qualities, but quantities as well. Quantity also must be considered since, from the perspective of algorithmic architectures, the quantities involved are not merely a reduction of qualities, sensory or physical; nor are quantities immanent to qualities. Quantities are rather conditioned by their own indeterminacies, since algorithmic architectures are inseparable from incomputable data or incompressible information: that information, that rhythmicity, that liveliness between zeros and ones.

The metronome sat on the piano just beside the sheets of music in front of me. It beat out instruction to my fingers as I practiced. Adagio, andante, allegro, vivace. Sound and mood shifts all around me Lento, grave, misterioso. I felt the piano feeling, feeling for me, feelings inseparable from the rigours of technicality. One, two and three. One, two and three.

Perhaps she and I have shared this — wanting to know why we thought about numbers or the way we thought about the machining of numbers, why we wrote what we wrote about numbers and machines. It seemed my
thought was driven to abstraction, to a threshold beyond which nothing would be the same. Not a thinking/writing block that threatens to prevent, but a block ready to implode, the blood still red fresh, at the age of five, the tendon severed in my right hand — the writing hand — by a shard of glass I had picked up to hold and then slipped and went falling into my blood splattering before me, everywhere. Finger tips touching the piano, touching the computer, leaving red stains turning brown, the stains in my brain, the traces of the traumatic turned into numbers calculating at great speed. Brain staining now a matter of computerized axial tomography, the CT scan, the fMRI, and more in the contemporary folds of a neuro-psychiatry.

We who have been forced to insight might perhaps have the foresight to see objects otherwise before we see with only human eyes, seeking an ontograph and discomposing hurt in the objects of a childhood faith.

A rubber doll with washed-out eyes, a stuffed yellow dog nearly life-sized, so dirty from being dragged along the street, outside the window where no one sits.

And the clock and the metronome — time machines, mysterious to me, and the books of fairy tales and poetry

All beloved
the objects more to me
than any of the humans can be.

The objects still
awaiting me
there always
therefore, me.

Attending objects
truly being,
only being, in the bright lights of a dissociation

In linking the programming of algorithmic architectures to object-oriented ontology, it is proposed that we stop thinking of algorithms as simulation or as representing something else. Rather, we can take a conceptual leap and conceive algorithms as being actual entities, what Parisi describes, following Alfred North Whitehead, as "prehensive entities". For Whitehead, all actual entities — organic and inorganic and no matter how small or large — can prehend or feel data from the environment and from other actual entities (1978: 69–72). In other words, prehensions are activities of feeling affective states that register changes in the environment of data. But prehensions are not just physical modes of feeling the way affect is. Prehensions also are conceptual modes of feeling realities that do not actually exist yet. In other words, prehensions also are speculative activities in grasping incomputable data, which allow for the arrival of novelty. Past data is brought into the present through the transformation of that data by the ingress of the incomputable. This means that the arrival of data from the past is not merely an inheritance but a computational transformation, in which experience is infected with abstraction or where incomputable data is a decisive factor in any actual occasion of experience. However, this is not to assume that incomputable data is liberating, but rather that it simply is not exactly controlling or does not control exactly.

Control is no longer intended as the calculation of the future by means of prediction, or the calculation of the unknown through pre-set probabilities. Instead post-probabilistic uncertainties or incomputable data operate in algorithmic architectures that allow parameters to change in real time without preplanned modelling — allowing the arrival of novelty. Novelty is "not something that depends on the subjective impressions of interactive users, but rather involves the parametric prehension of data..." (Parisi, 137). Not preemption but prehension.

He didn't want to be an accountant, he once told me.
It was something else he wanted to be. What was it?
Some thing more frivolous; ah yes, a tugboat captain, he had said, but I wasn't sure he wasn't teasing me and I decided he meant he had wanted to write poetry. I never quite knew whether he was teasing me or ridiculing me.

And I still search for what poetry there might be in the counting, as the minutes pass, counting off the time of my sentence.

Sent to stand in the corner,
I will not be set free until I can read the time on the face of the clock near my parents' bed.

This is how he punished me.
The clock was enclosed in a dome of glass, a miniature cathedral, an airless space of time, held still for me a horrid glimpse of eternity. I had been left there, standing, full of fear that I would never learn to read the clock’s face. Its hands moving from one Roman numeral to the next, it said nothing to me. But there was a pendulum hung with delicate wiring between the golden columns that held up the clock with its indecipherable face. The pendulum’s mechanical movement, turning one way and then back again, made time flee.

His meanness made a penitent out of me. My fingers move from bead to bead, ten and then one alone and then ten again: the Rosary, like a holy abacus for counting mysteries, as I lie there right near their bed and pray: Hail Mary, full of grace. Hail Mary, full of grace.

What I am suggesting is that criticism of all technical processing (and what processing now isn’t technical?) needs to be done in terms of algorithmic architectures that are spatiotemporal objects in the calculative ambiance of incomputable data. “Calculative ambience” is Jordan Crandall’s term for a sociality where “calculation, action and materiality intertwine” such that “gestures, objects and environments can ‘speak’, however seductively or violently, in ways that are not always addressed to humans or known by them” (2013: 71). Crandell goes further suggesting that through “a mathematical seeing, patterns come into view that previously could not be seen by the naked eye, in ways that augment, or occlude, traditional observational expertise and human intuition” (75).

This, “datalogical turn”, the turn to big data and the algorithmic architectures that parse it, brings a new sociality as it challenges sociological methods of measure, uncovering their entanglement with first and second order cybernetics of the post-World War II years (Clough et al.). In those years, sociological methods served to configure the human subject with statistically measured populations that “made it increasingly plausible that social practices really were repeatable... a wide range of human practices could be construed as constant conjunctions of events while ignoring the historical conditions of possibility of this patterning” (Steinmetz, 2005: 129). If the historical, in all its contingency and uncertainty, was not the reference for statistical models and replicable experiments, it was because the historical was displaced by that more powerful concept of “system”. In terms of sociality, to maintain a system and its functionality is to reference the capacity for social reproduction in terms of a boundary – that which marks the “outside” of a system. This boundary, combined with a regularity in the interactions or interconnections that constitute the system, allows the system to be modelled so that human behavior becomes predictably expressed as population levels or as statistical probabilities. This is sociology’s epistemological unconscious or its unconscious drive to positivism, empiricism, and scientism that, in the post-war years, married phenomenology, or the epistemology of the conscious human knower, to the technical demands of the state, enabling institutions to attach population data to systems of human behavior, on the one hand, and to rationalize the figure of the human subject for state instrumentalities, on the other. In the post-war years, sociology’s epistemological stance is informed by first-order cybernetics predicated on a homeostatic, equilibrium-seeking model that presumes a certain durability of reactions to observed stimuli, which allows for a probabilistic prediction of future patterns (Hayles, 1999).

In first order cybernetics, the researcher stands to some degree outside of the system that is being observed and applies technical apparatuses to convert incoming data into repeatable and decipherable patterns.

Gone to war, they say. He’s gone to war just days before I am born. And I wait and wait for that man photographed in his uniform. A loss that becomes a uniformity that we their children would grow up to refuse, thinking we could change the world that got made while he was gone to war. Gone to war, they say. He’s gone to war.

Even when in second-order cybernetics and the critical social theories and methodologies that would arise in the 1970s and 1980s, reflexive interventions that were meant to “correct” the dis-identification of the observer with the data of his/her observations were imagined even when the human subject was being figured not only as observing, but as self-observing, even then systems-thinking nonetheless remained intact. There continues to be a presumption of a known relation between the parts and the whole, where the parts continuously constitute the bounded whole through the many interactions between system and environment. Contrary to the presumptions of system-thinking about parts and whole, boundaries and observers, the operation of architectural algorithms that parse big data does
not presume parts are reducible to the whole or the system, since parts can be large but quantitatively incompressible and, as such, bigger than the whole. The part may deracinate the whole at any time. Put otherwise, the datalogical turn moves away from representation and its reliance on sociological correlation and correlative datasets, away from systems, and toward the incomputable conditioning of parametric practices in algorithmic architectures.

And there was a moment, I remember, when we sat, my father and me, on the floor. There was a tunnel of light that blocked my peripheral sight of my mother standing there. My vision instead was directed straight ahead to the shelf of books he read to me. Leather bound with golden letters, and fancy illustrations in iridescent colours of purple, blue and red. But the moment does not hold. There is a much too intense sense of a volcanic trembling in my stomach's pit. Blinded by the light, there in her sight, I wonder how anyone ever again will sit with me.

What is crucial in the post-cybernetic logic of big data is that there is no reliable relationship between input and output, but rather that what is valued is the capacity to generate new and interesting sets of relationships. Data fields pass in and out of bodies, feeding on novel and emergent connections within and between bodies. Indeed, the ability of data to smoothly travel away from their original site of collection is highly valued within ecologies of big data. The translation between behaviour and data point or what we have called the individual is often less than clear and subjected to numerous third and fourth party interventions that multiply the networks through which data will travel. These networks move us beyond systems and the observing/self-observing subject. Or, as Bruno Latour and his colleagues put it: Such conceptual pairs as "specific" and "general", "individual" and "collective", "actor" and "system" are not essential realities but provisional terms—a consequence of the type of technology used for navigating inside datasets (2012: 2). These conceptual pairs will not survive the methods of measuring that are parsing big data (2012: 2).

There is not only a crisis of empirical sociology, there is also a further decentring of human cognition, consciousness, and preconsciousness. Mark Hansen proposes that we can no longer “take up embodiment as a site where diffuse data is processed to yield images or experiences...; rather, in the face of technical incursions that render the body directly ‘readable’ by machines, we must embrace a conception of the body as a society of microsensibilities themselves atomically susceptible to technical capture” (2013). Rethinking the body also involves rethinking thought and consciousness, since consciousness, as Hanson sees it, is after the fact of the presentation of data. Big data and ubiquitous calculation can effectively repress consciousness by operating in technical timeframes to which consciousness has absolutely no direct, experiential, or phenomenological interface; there is no possible subjectification of big data or ubiquitous calculation (2013). Consciousness is generated after-the-fact, as an emergence generated through the feeding forward of technically gathered data concerning antecedent microtemporal events. While consciousness continues to experience its own narrow bandwidth reality through sense perception, as Hansen puts it, “this experience is disjoined, both temporally and operationally, by the operational present of technology – where behaviour gets shaped – independently of any conscious access or input” (2013).

The algorithms let poetry arise out of the numbers, the indeterminacy turning numbers into lines of rhyme, beating out the time, A numerical poetry hugging the red line at the margin’s edge of the page in a child’s copy book. My name is written on one of the spaces in the middle of the marbled black and white cover.

It is especially important that we not filter our understanding of the social through representational frames that are understood to supplement reductive quantitative measures, when instead, as a result of complex processes of calculation, computing technologies cannot be thought merely to be reductive: they neither quantify biophysical and cultural capacities, nor are calculation or information understood simply as grounded in such capacities. Digital computing has its own capacity to be adaptable and "creative" in ways that challenge the assumption that the “artificial” nature of computational
intelligence is inherently limiting. Rather, big data is revealing digital computation's immanent potential in the operation of incomputable data, thus leaving us with or leading us to a calculative aesthetic.

Adding to the recent conceptualisation of aesthetics offered by philosophers engaged in object-oriented ontology, a calculative aesthetics adapts aesthetics to ubiquitous calculation. What already has been claimed for the aesthetic in contemporary object-oriented ontology is that "the aesthetic dimension is the causal dimension", where causality is a matter of allure. As Steven Shaviro puts it: "It is only aesthetically, beyond understanding and will, that I can appreciate the actus of the thing being what it is, 'the sheer sincerity of existence" (2010: 7).

But this is no mere return to naïve empiricism or scientistic positivism. Instead, the philosophers presently elaborating an aesthetic causality are delivering causality from those forms of causality that for some time have given humans a sense of control over life, over matter, over each other, and have shaped the practices of art and politics. As such, the return to aesthetics is also not a return to the sublime, where there is the experience of the overwhelming disjuncture between imagination and understanding, along with a conscious recognition of this failure of human comprehension. Rather, it is about objects having the capacity to affect and to be affected by each other... caused to become different things" (2010: 10). It is the aesthetic of the beautiful, where "what is regarded as beautiful is not experienced as a passive thing or as something that merely produces an effect in us but rather as inviting or requiring something from us, a response that may be owed to it... as if the beautiful thing had an independent life of its own..." (Moran, 2012: 213).

What a calculative aesthetic adds to the sensibility of quality is the poetry of quantity through stipulating indeterminacy as immanent to calculation in these times of big data and ubiquitous computation. It also points to what constitutes the generalised trauma of these times: calculation and incomputable data become the necessary horizon for criticism. All that has stood, and so much has, as qualitative supplement to quantitative measure no longer holds a privileged position. The trauma of the digital, then, is in the displacement of the supplement of meaning and language, subject and self-reflection, from their privileged position in epistemology and ontology. It is in terms of this displacement that our critical practices must be rethought.

Bibliography:


These lines of poetry come from my "Praying and Playing to the Beat of a Child's Metronome". Subjectivity 2010, 3(40):1-17.


These lines of poetry also are from my "Praying and Playing to the Beat of a Child's Metronome".


These lines of poetry also come from my "Praying and Playing to the Beat of a Child's Metronome" and my "The Object's Affect: The Rosary".

These lines also come from my "A Dream of Falling: Philosophy and Family Violence".