

Some Figures of Matter

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The materialist stakes

It is impossible to reflect on what matter is without confronting the *materialist pretension*: everything that is is matter, or rather is *nothing but* matter.

Such in effect is the paradox: the assertion that everything that is is matter is not yet materialist, one still requires the *nothing but*. If the word *matter* has no other signification than 'what there is' or 'what is', then the assertion 'what there is is matter' means no more than 'what there is is', and hence becomes more or less indistinguishable from Parmenides' metaphysical thesis. But then, on the one hand, the material, as a matter of principle, encompasses every phenomenon of every order, and one is no longer reducing or denigrating language, ideality, consciousness, the symbol, movement, or the social, if one calls them material. On the other hand, the positing of matter in its totality envelops an unthinkable that, in spite of all, necessarily carries thought beyond that which is rationally reassuring, beyond the explicable or controllable: the fact of the *universum* of what there is – that we seem to have escaped from some originary death of being – is just as 'mythical' as the fact of a God. Thus, the supposed absence of a God does not free us from what is in any case given but indecipherable, i.e. non-nothingness in its ultimate contingency (toward which Leibniz's famous question oriented us intellectually).

As a result, what the materialist calls 'matter' must mean something more determinate than being, in order for its 'annexation' of the beings that ideality lays claim to make sense. The word 'matter' must, in truth, name a sense of being, and it is this sense whose universality materialism affirms.

Is idealism then, correspondingly, the promulgator of a rival sense of

being, that of ideality? Not at all, even if only because idealism does not affirm that all is ideality, or at least not necessarily: it thinks a hierarchized ontology. For instance, there are *eidè* in which sensible empiricities participate, so that the latter *are* just as much as the former (even if only as their pale copies). More essentially, idealism is possible in an an-ontological mode, it can affirm that matter must be thought on the basis of that which is not, and which is the idea.

I would like here simply to explore some figures of matter, that is to say, some clarifications of the meaning of being as materiality, asking myself each time with what legitimacy the materialist reduction is carried out according to such and such a figure, such and such a clarification.

1. The physicalist figure

In the world we are in, the first and most plausible of these figures is the scientific one. Thus, one will say: what truly is is what science says there is. Not minerals, water, vegetables, gases, but, let us say, the microscopic structures described by quantum mechanics. Two immediate observations can be made about this:

- from this point of view, the sciences don't enjoy equal access to matter: quantum reality supplants the reality of descriptive chemistry, which in turn supplants that of biological reality. The sciences stand to one another in relations of '*a priori* reduction' that fix in principle which of them grasps materiality more than the others.
- the 'criterion' that validates the reality of a science as (more or less) *matter* is that of reduction: quantum reality supplants the reality of non-quantum chemistry because, as a matter of principle, the entities described by the latter fall under quantum physical descriptions supposedly accounting for them at the causal level.

What then is the reductive force of this materialism?

- At an initial stage, it is immense because nothing forbids an application of the gesture of modeling proper to physics, or analogous gestures, to any phenomenon, process, or empirical feature whatsoever. Notably, a physical study of neurophysiological processes *à la* Penrose seems possible. It always seems possible to anticipate a science superior to the present one that will prove capable of 'reducing' many facts and

types of facts.

- At a second stage, it is weak, because certain relations of reduction are merely postulated and are never corroborated by actual predictive studies. *De facto*, attempts at a physical theorisation of biological, psychological or social phenomena stumble upon inextricable obstacles linked to the complexity and independence of variables. One can deny that the physicalist reduction 'works'.
- At a third, more essential stage, the physicalist reduction of matter passes over in silence the 'transcendental decision' upon which it always depends, and which renders the materialist description relative to the positing of mathematical idealities. The discourse of quantum mechanics mobilizes sophisticated mathematical objects (Hilbert spaces or self-adjointed operators at the very least) that seem inseparable from the image physics provides of these quantum entities and processes. The presence and role of mathematics in this affair indicate to us that science operates within a transcendental project: it proceeds in step with a mathematical anticipation of the forms of presentation of phenomena; one embodied in 'phase spaces' and presiding over whatever kinds of causality science detects, and hence over the very 'materiality' of matter. In other terms, Husserl used to say that it was necessary to return from the world of science to the world of life, whilst removing from the latter its cloak of ideality: if he was right, the world of science is as much that of idealities as it is that of materialities.

For all these reasons, and regardless of the popularity it enjoys among many fine minds, physicalist materialism is in all likelihood devoid of any genuinely reductive force.

2. The figure of the continuum

A second figure, already less banal, more philosophical, albeit maintaining certain relations with the preceding one: matter would be principally, essentially, and originarily, *the continuum*.

The idea is that beings are the result of the taking hold of a form within a matter: such at least is the teaching of hylomorphism, which can be traced back to Aristotle. But the most fundamental instance of that within which a form can take hold is the continuum: its cardinal and topological richness predisposes it to receive border determinations that

isolates beings, specific objects.

René Thom returns to this idea by coupling it with the physicalist interpretation of beings: according to physics, 'there are' always and everywhere only dynamic systems, in accordance with which points follow trajectorial destinies. What we call object or quality can only be a convex region, a stable configuration. The selection of qualities is to be understood in terms of the stabilization of dynamics into attractors. More generally, the categorization of spaces and the stratification of varieties constitute the general schema required in order to think the structuration of the world.

In an interesting metaphysical variant of *continuum-gony* [*continugonie*], the originary continuum is a chaos of infinite dimension wherein everything subsists in germinal form, but nothing is separated or seen as such, each thing coalescing with everything else in a grey confusion. Here, the birth of the qualified being consists in dimensional reduction, circumscribing the 'limitless virtual' into a possibility fixed by a parameter, which must then be qualified until objectivity is generated. Such, at least to the best of my knowledge, is more or less Peirce's cosmology.

It is still possible to envisage Husserlian phenomenology in these sorts of terms: the flux of lived experiences is a primordial continuum from which emanate all immanent and transcendent objects through a subjectivation which is its own temporal auto-manifestation. The path taken by this synthesis of themes sayable 'beyond' the continuum, the path of intentional synthesis, is, at least at its base, the precipitation of a *morphè*. The continuous donation [*donnée*] of the flux as pure matter to be animated by form is once again said to be *hyletic*. As a continuous coalescence, hyletic data seem to provide the material for a phenomenological pseudo-genesis.

For reasons similar to those presented earlier, this figure of the continuum is ambiguous as far as our discussion is concerned. The continuum's canonical determination is, in effect, mathematical and hence 'severely' ideal. Consequently, the figure of matter chosen here seems to possess very little reductive force. And yet the idea is that the primordial continuum is not yet mathematical; that there is an instance of it given independently of such formal construction and cognition. Such in any case is the situation with Husserl: the flux is the brute fact unveiled by the reduction, but the intimate experience of irreversible slippage is supposed to render it familiar to us 'before' mathematics; even if, subsequently, Husserl overtly uses the mathematical continuum as a guide in order to conceptualize intentional restitution and its problems.

Truth be told, the difficulty is that if the continuum is to genuinely escape from mathematics in order to count as instance of matter reductive of ideality, it threatens to lapse into too great an indeterminacy (compromising once more its status as materiality, no doubt).

But there is a second ambiguity. If it is conceived as a dimension of genesis, the primordial continuum will more or less inevitably acquire the signification of the virtual: the infinite gradations of the primitive continuum express the multiplicity and diversity of what could be. But can matter be virtual, must it not be actual?

One sees then that the identification of materiality with the primordial continuum does not easily satisfy the expectations of materialism.

3. Figures of singularity

It seems to me that there is also a version of materialism that proceeds from nominalist critique. The basic assertion is that only individuals, singular entities, exist. *Socrates exists*, but not Man. Universals are fictions, convenient terms, linguistic actualizations without worldly correlates (*flatus vocis*). The corresponding notion of matter is thus that of the actual singular. The 'material' is on this account real in a sense that refutes the ideal; it is that which is 'already' [always already] well separated, well individuated, a fragment of a world that is itself equated with an immense reservoir of punctual objectivities. Matter presents itself as a grain of matter.

Medieval nominalism and, to a large extent, analytical philosophy, both operate under the aegis of this 'atomistic' materialism.

Doubtless one may also, precisely on this account, link an entire strain of physicalism to this nominalism, albeit one that is radically foreign to those varieties invoked above: in particular, the atomistic tradition in physics must have held it necessary to adjust its empiricism to such a conception of matter.

It seems to me that a certain 'singularism' widely shared among denizens of the small world — within which I include myself — of *French thought*, was not entirely foreign to this nominalism. Did one not profess, in effect, that there was no society, reason, universal rule of language, all-encompassing finality of affect, biological law of the body, but only the singularity of this body, this desire, this word, this struggle, this love, the face-to-face on that particular day of this particular person with this painting, etc.? No frameworks, no possibility of relating things and facts back to coordinates. The sense of effectiveness of that which is

would always devolve from its being irreversibly one, completely new, unheard-of.

Marxist politics, for example, as François Laruelle and Jacob Rogozinski — to name but two — have reminded us through their work, has always sought to denounce capitalist and social abstraction in favour of *individuals*, of those multiple *ones* that the individuals of history, construed as basic and repressed givens, would constitute.

Special mention needs to be made here of Deleuze: his theory of singularities situates these on the side of the virtual, on the side of a quasi-mathematical deployment of the *problem*. Thus, they are not good nominalist singularities: objective, actual, localizable.

The trouble with this nominalism is that everything denies the primitiveness of individuals. Scientific discourse leans rather towards that 'continuumism' invoked in section II, and sees individuals as stabilizations abstracted from a background, from a continuous variation. Or as stranger abstractions, linked to fields, to group or algebraic representations, to the specters of operators: the object is not an individual but a regime of mathematical objectivity, conditioned through it and by it.

Thus, nominalist materialism must withdraw either back to a phenomenology of sensation, or to language. In the first case, one will invoke irreducible sensations as basis for the world, as ultimate singularities, matter itself. In the second case, semantic unities will be the ultimate constituents.

But in the first hypothesis one comes up against the incommunicable privacy of *qualia*, an incommunicability rendering the materiality of these sensations a rather poor candidate for the role of providing a foundational element for a shared world. Conversely, in every naturalization, the elementary primitiveness of sensations becomes blurred and they find themselves re-annexed into a psychological and neurophysiological continuum.

There remains the hypothesis of a linguistic identification of ultimate unities, of basic 'materiality'. This comes up against two difficulties:

- a) the ideality, the repeatability of everything that participates in the system of language strikes a fatal blow to the reductionist ambition of a logico-linguistic materialism;
- b) the hermeneutico-gestaltist 'condition' of language and meaning, which precludes the viability of adhering to the idea of closed local contents (cf. the work of P.Cadiot and Y-M. Visetti¹).

¹ *Étude de la Poésie Pour Une Théorie des Formes Sémantiques-Motifs, Profils, Thèmes.*

4. The figure of becoming and of the practical

One final idea — which, through the invocation of Heraclitus, could just as well be said to be first in the order of thought's historical exposition — is that the ground of being is becoming. What passes for entity, object, stabilized thing, is only a temporary pretence, a concretion corroded at its root by becoming and, for he who knows how to see, already dissolved by it.

Beings are not relativised *vis à vis* the continuum, as in section II, but relative to passing as such, to movement, to the irreversibility of the change that carries everything away.

That having been said, in our day, the philosophical reference for such thinking is no longer Heraclitus but Hegel. The operation of becoming that, overturning and negating each thing, governs the course of being, is given the name of dialectics. This name teaches that becoming is something like a dialogue. Movement, becoming, posits itself, falls into existence [*l'être-là*], but this positing is not final, it engenders something like a response, a second voice and way of becoming that lets itself be named determinate negation, this dialogue of positing and response finally sublates itself in the *Aufhebung*.

Thus, already in Hegel, the shifting ground of becoming is understood as a dialogical opening, articulated via the scansion of three distinct moments. Becoming 'does not belong' to the primordial continuum, rather it possesses the form of a consecutiveness that is inexorable, spiraling, analogically dialogical; albeit one pertaining to the relation between concept and existence [*l'être-là*], and not at all to persons.

But in what is for us the most authoritative version of this thought, dialectical becoming is yet more precisely identified as practice. Practice becomes equal to its work (moment of positing, of existence), overturns the latter as something needing to be revolutionized (moment of negation), and overcomes itself, as much as its work, in a higher synthesis [*assomption*] that memorizes the preceding stage in negating it [*en la supprimant*]. Naturally, this formal motor of practice ceaselessly re-ignites itself.

It is principally in the domain of the human and social sciences that the scheme of 'reduction to the practical' is put forth. Marx announced that there was no human essence, that man is what he makes of himself,

(Paris: PUF, 2001).

and this glad tiding, as far as I know, continues to dominate this region of knowledge. Economy, sociology, anthropology, geography, political science, all profess that everything in the field of the social is 'constructed'.

Through a post-Heideggerean interpretation of Being within the horizon of technics rather than time (the latter requiring the former in order to temporalize itself), the 'Compiègne School' has tried — not without some degree of success and relevance — to expand the schema of reduction to the practical to the cognitive sciences. Thus, Bernard Stiegler already refers the genesis of the organism of *homo sapiens* back to Paleolithic agency; but Charles Lenay's work on the cognitive 'synthesis' of space, insisting on the generative role of motivity and action, points in the same direction.

In his *In A Materialist Way*², Pierre Macherey admirably explains how 'to philosophize as a materialist' is to think in relation with pre-philosophical life, to strive to link the dynamism of practice within this life to the conceptual level, and to reinvest all conceptual acquisition back into this interminable historical metabolism.

Macherey clearly shows the ambivalence and duplicity of practice *vis à vis* the notion of matter. On the one hand, practice must confront a material work, substantially distinct from it in its inertia, confronting it, and from this point of view practice would not be matter. But on the other hand, the viewpoint of activity, of practice, is that from which truth proceeds, throwing the best light on all the stabilities, the matters, borne by this practice, to the extent that practice appears as the prime matter for all matters.

What reductive force does this thought possess? A considerable one. Many today are convinced by the Wittgensteinian idea that 'defines' signification in terms of use or utilisation, which is to say, practice. Epistemologists of logic and mathematics see in the movement of re-elaboration of objects and problems the core that explains the network of logico-mathematical idealities. Learning and cognitive development become envisageable as the always provisional result of life's self-correction, which is practice through and through.

The only weakness of this reduction lies in the very concept of practice. Inherited from Hegel by way of Marx, it requires that one assume unquestioningly the 'segmentation' that determines the drive and the result as such. The 'model' of dialogue applied to becoming, which

² Pierre Macherey, *In a Materialist Way. Selected Essays*, Trans. by T. Stolze, Ed. by W. Montag (London: Verso, 1998).

permits the translation into meaning of every genesis, constantly presupposes that 'in being' the event counts as action, that results disengage themselves as discrete motifs from the primordial continuum, and that a drive possesses the wherewithal to govern them.³ But doesn't all this require a lot of ideality?

Translated by Ray Brassier

³ For clarification on all these points, cf. J.-M. Salanskis, *Modèles et Pensées de L'Action* (Paris: L'Harmattan, 2000).