

The 3rd volume of DAC was edited by Ruxandra Demetrescu and Dragoș Gheorghiu (Graphic design, layout and cover by MIHAELA MOTAIIANU), in two issues: No 1 \& 2. The journal aims to conjoin textual and pictorial logics. In this handout this ambition is backgrounded by elaborating a logical point.
A roundup with the DAC contributors to Vol. 3-No $1 \& 2-$ will happen in a week. It made me think about a short exchange I had with Dragos Gheorghiu, some years back, on S. Lupasco. Some of his philosophical ideas has had an indirect but durable impact, over the years, on the work that led to the double essay in DAC. To the informed reader it must appear rather evident. The spectre of the 3 rd included abides the 'gate' and 'swirl' diagrams. A month, or so, after the publication I marvel at the constellation of Romanian and Greek editorship: Lupasco w/Aristotle.
It is complicated. Can it be simplified? In the scope of the learning theatre the 3rd included can be formulated in this way: in the learning theatre thought and extension are treated not as the same, but equal. Which means that they are treated according to the same rules. Since pledged to education (Camnitzer) there will be both declared and undeclared elements. If to deal with logic in the learning theatre, it would have to be declared. Logical inferences are validated dialectically, there would have to be at least two logicians present in the learning theatre, that would also have to be declared. That is, assigned rather than assumed.


Stéphane Lupasco (1900-1988) was a Romanian-French philosopher whose family moved from Romania to France when he was 16, as his mother was a pianist studying with Cesar Franck. He started off a Lycée Buffon, evolved into a transdisciplinary philosopher who was well known among scientists and artists alike. He later became a co-founder in 1987 of the CIRET together with Bessarab Nicolescu, Edgar Morin, René Berger and Michael Random. His family belonged to the old Moldavian aristocracy. He is famous for his thesis on the post-Aristotelian logic of the 3rd included: i.e., if $\mathbf{p}$ and $-\mathbf{p}$ there is a third $\mathbf{x}$ which is neither. I discovered the work of Lupasco through Asger Jorn's Triolectics.

Both of them would be expected to declare that they are present in the learning theatre-to each other-to discuss logic. This becomes particularly important as we note that, in the learning theatre, there can be undeclared people in the attendance: not that they are not present, but because the learning theatre can include an audience (which may count both people who have a declared relation to logic, and others who haven't). In addition, there may be other un/declared items in the room: media like video, audio, texts; and the variety of props in the room, that may/not be activated scenographically. These cannot be cited as witnesses or evidence, unless they are accesses as such and declared. What can be cited/declared is res publica, by definition. The remainder is 3 rd included.
A priori none of these need be cited nor declared. But they can: when the audience ask questions from the floor, and the two logicians on stage become undeclared as they listen. This come and go between being undeclared and declared also characteristic of reading. When reading silently and apart the reader is
undeclared. If reading out loud to someone then the reader is declared. Moreover people can be particular about how they dress for reading; and have some more/less elaborate scenographic requirements, screening for events while reading, to intercept and frame (or, declare and cite). These are not mimetic devices: in fact they counter emulation, substitution and erasure.
Turning to Vol 3 No $1 \& 2$, moving from thought to extension. Since they have been published in and peer-reviewed by DAC, all the authors are declared. The originality of the journal, however, is that the contributions are declared in two different capacities: text and images. As a forum, the journal thereby comes out by the joint declaration and articulation of two different spaces: the oratorium (text) and the laboratorium (images). If one is declared, the other is cited and vice versa. Which is how the journal can co-host both essays/articles and portfolios/lineups. It is exhibitable.
In this sense, it is a very fine initiative and concept for the two academia (art and science). In the present handout, however, it brings us to the relation between logic and its application: since if $\mathbf{p}$ denotes text and -p defines images, there is no problem to include a $3^{\text {rd }} \mathbf{X}$. In fact, that is what we are looking for: as authors, editors and readers we progress in this triangle. They tangle \& tango at all 3 instances of an ongoing generative process. In the tradition of natural history, the crosspressure of two terms coming up with a 3rd heterostructural layer, is called a disordered system.
The emphasis is not on contra/diction between $\mathbf{p}$ and $-\mathbf{p}$ but on their being disordered (and still coming up with emergent interactions w/some systemic features). In geology, the cross-pressure between the weight of a glacier $\mathbf{p}$ and a rock-bed -p will produce a 3rd included that resembles neither: a patterned bed of fairly regular ice rods with near-hexagonal shapes. They are structurally heterogeneous both to the rock and the glacier. In the tradition of Norwegian social anthropology that I come from such examples are more ready at hand than those quantum physics.
On the Parisian stage, the Stéphane Lupasco's ideas of quantum void as a 3rd (psychic) matter between physical and biological matter-homogenous and heterogeneous dynamics-knew its heyday in the 1960s: his book, The three matters was a best-seller. What is easier to grasp of a) the thought-experiments of quantum mechanics; b) hetero-structures extending from disordered systems, may be time-local and tethered to the cultural context. The interest in geology may be more specific in Norway, for instance, than in Central Europe (e.g. because of the energy sector).
So, for this reason, it might be adequate to return to a degree of logical formalism: that is, the logic of the learning theatre in which logic must be accounted for both in thought and extension. That is, where logical consistency must have an adjoined protocol of elements declared and cited. Let $i$ determine an element that can be declared, and $j$ an element that can be cited. Let us mark $i$ and $j$ with" " when they are declared or cited: that is, " i " and " j ". When $i$ is not declared and $j$ not cited, they are marked with $-(-)$ : respectively, $-(-\mathrm{i})$ and $-(-\mathrm{j})$. When $i$ is declared $j$ cannot be cited, and vice versa. Like text and image to one another. If one is declared, the other recedes.


So, we will note the two with the logical vectors: (1) "i"|-(-j) [i is declared] and (2) "j"|-(-i) [jis cited]. However, even when not declared $i$ can still assign, and when not cited $j$ can still apply. Hybridity follows in the wake of purification: there is a direct link between Latour's major thesis and Lupasco's 3rd included. We can denote (3) the application of $j$ to $i-(-\mathrm{j}) \mid$ " $i \overline{\prime \prime}$ and (4) the assignment of $i$ to $j-(-i) \mid$ |"j". In sum, with the 4 vectors we have a Klein's group $\mathbf{K}$ (1-4): a term, its opposite and their inversions.
Let $\mathbf{p}$ denote the special entity (Klein) of the K-group: we define it such that-adjoined to the group-it will preserve its properties as it expands (which it will with the alternation of application /assignment), by including it into the group: when the group does not expand-and its original properties remain intact -it is not included into the group. That is, -p. It is a practical convention. But a logical query that includes semantics would then ask: what is the range $\mathbf{X}$ where $\mathbf{p} /-\mathrm{p}$ doesn't make any difference? That the point of declaring $\mathbf{p}$ is not to identify the properties of $K$ at a time $T_{0}$, but to create a provision for these

A SWIRL signature flanked by two inversions. Across the SWIRL: applications \& assignments conducive to the expansion/contraction at the core. properties to be identified at a time $\mathrm{T}_{1}$ and $\mathrm{T}_{2}$. One could call it a constitutional provision.

