

Is there something more annoying than a philosophical treaty about the relationships between physics and mathematics? Indeed, why should we emit any doubt on their deep links? Is there still someone today in the modern and progressive part of the world who would have troubles with that question? I think the answer is unexpectedly: yes. And the reasons for that are certainly asking the roots of our organizations. Although it may be totally politically incorrect to introduce a social component into the debate, the question asked by the sponsor of that contest is also a political one.

That question could have been answered in a romantic way, in explaining the (quasi-mathematical) correspondence between the music and the music theory or the language and the writing, on one side, and the physics and the mathematics on the other side. Effectively, traditionally, the mathematics is understood as the attempt of a theoretical transcription of our physical reality. So that roughly, following the old Cartesian method, we have drawn a perhaps fictive partition between what we perceive as our reality and an abstract world supposedly living in our brain. Once again theoretically, that partition is supposed to increase our ability to understand and to order what we perceive. Was it the right method? Was that partition really a necessary separation? Are mathematics and our brain living outside the reality? Evidently not! And in fact we may ask our self why we repeatedly adopt that schizophrenic attitude.

Furthermore, and that's the political point here, that separation is implicitly installing a social stratification between those who understand the esoteric hieroglyphs and those who cannot. A master class is emerging because of it. This is an ancestral phenomenon appearing inside the human communities. One of the oldest examples certainly is the birth of administrations via that procedure. The Egyptian scribes who were people able to write what the others could "just" say or do, are a perfect illustration of the power given by the mastering of the writing.

That social partition induces slowly a back-reaction. The power which has been won by seemingly lazy men sitting all the day whilst others were immersed in a hard and real world generates jealousy, envy, and at the end hatred and disgust. This is why I think that that contest is totally pertinent and actual. The discrepancy between the high-class and the every-people society explains why some universities encounter difficulties in recruiting students.

Knowing the incredibly increasing problems that the poorest classes of the society are facing all around the world, one may easily understand why that partition is finally contra-productive for the whole community. Instead of developing a politic of isolation for the elite, our societies would certainly be better-advised if they would act in democratizing the sciences. More knowledge in more brains, more imagination and creativity in more heads: this would certainly bring more new ideas and more concrete solutions, short said, this would be a better help for the society in general.

My conclusion is that we have no good reason to separate physics and mathematics in our all-days experiences. In opposition, we have reasonable arguments encouraging us to disseminate concepts explaining why mathematics, which is per se the discovery of all veiled systematizations encoded in our world and which is also the science of the combination per excellence, should be understood not only as a natural part of our brains but also as a natural activity inside all natural phenomenon.

## Mathematics is the intrinsic motor of physics

### Trick or truth: the mysterious connection between physics and mathematics

PERIAT, 25 February 2015

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The genetic codes, the behaviours are driven by some mathematics permanently looking for new paths insuring the self-surviving. The appropriateness of mathematics to physics is neither a magic coincidence nor a wonder; this is a fact and a necessity.