The human doubt about the innateness of Mathematics in Nature

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Abstract.

In this brief argument, I argue that a dilemma about the innateness of Math in Nature, opposite to the hypothesis that Mathematics could be an human *invention*, is a natural non-sense depending from human innate inclination to logical doubt, due to the effective irrelevance of the Human Mathematical order and its laws within the relation between the Natural Mathematical phenomena and the Nature itself.

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Keywords.

Mathematics, Philosophy, Humanism, Naturalism, Hermeneutics, Quantum Logics, NCLs, Complexity

Relations.

1st group:

$$
\left[\begin{array}{l}
H\ |Y| = M\ |N| \\
H\ |N| = M\ |N| \\
H\ |N| = M\ |N| = H\ |Y|
\end{array}\right] \quad \textbf{(1)}
$$

2nd group:

$$
\left[\begin{array}{l}
Hd(Y{\sim}N) = M(N{\sim}H) \\
\text{or} \\
Dh(Y{\sim}N) = M(N{\sim}H)
\end{array}\right] \quad \textbf{(2)}
$$

~given H or h for Human, Yes and Not, M for Math, d or D for doubt.

Argument.

In my opinion, genetically it's found that a Natural Mathematics and a Human Mathemat(-*ical*) order co-exist. The element d~D for Doubt and the Human (2) are two variables dependent each other, while Nature and Math (1), (2) aren't at all here. Thus, in Nature Math exists even regardless of the humanity and its doubt (1), while it is not possible the contrary (2). Only if the Human is considered as a part of Nature free from the doubt, then its relation with Mathematics and Nature remains stable in free, reversible equalities (1). On the contrary, if the Human Doubt is introduced, stability is lost (2).

About the Human Doubt whether it could consist the innateness of Mathematics in Nature.

The 2 answers Yes or Not in (1), (2) are not *irrelevant* for the Human Doubt, but only for it. Yes and Not are referred only to the Human Mathemat(*-ical)* order (2), and irrelevant to the Mathematical relation (identity) to / in Nature (1). Yes or Not in (2) are relevant only to definitively determine that the argument supporting the Doubt about the (further) <u>consistence</u> of the mathematical order, affects our mathematical normalcy, as for the <u>existence</u> of the human reasoning, in terms of order not Natural but "Human" [check the last Hersh's "*Humanism of Mathematics*" concept - in cit., 2004].

The consequence is that, if any mathematical phenomena in the remote future would change or violate the current Mathemat(*-ical)* order, the lawbreaking of the current same order would always act *ex-ante* if in the Mathematical Nature (1), and perceived *ex-post* in the Humanistic Mathemat(*-ical)* order (2). That is to say, human being can not create any kind of Natural Mathematica Nòva, nor foreseen its original forms in the future [while, it is — absolutely — possible for the human reasoning to identify and synthesize mathematical novelties looking toward the past, basing on epistemology. This last raw argument explains the time used by epistemologists and (some) hermeneuticals in discoursing on the phenomena of the world, which already have (been)].

Meanwhile, both the Natural Mathemat(*-ical)* order and the relation between Mathematics and Nature (1), subsist regardless of the reason of the Yes or the Not in (2).

Also, since the Human Doubt leaves entirely unchanged the relation between Mathematics and Nature, it itself self-excludes the *Humanism of Mathematics* (infra, 2004) as a relevant part in the investigation — but again, not in the domain of rationality, nor in the ordered human civility and brilliant discussions. Given the Doubt as something necessarily rational, our rationality is irrevocably depicted by some Language, and the language is all-up dependent from an endless series of contradictions. Are contradictions "Mathematica"?

Scientists and philosophers [unus pro omnibus : Plotinus - "*Enneadi*"] tried to descry if the Human Nature could be something "higher" [deviated via *divimun afflatum* for Plotinus] from the profound distinction between (1) and (2), discriminating the Human Being from the other Natural Beings, incorporating the human designing capability straightly in the kernel of Nature *tout-court,* but the attempt for those discriminations didn't resolve the dilemma, and the Natural Mathematics remained *a priori*, not far from Democritous' naturalistic [unitarian] figure of the world.

It is impossible at all for any human reasoner to find a *place* in the world nor a physical evidence in biology and any other *reality* where the solution to the posed hierarchy is rationally extractable, except in the rational order of *Humanism (of Mathematics)* [that is placed outside the relation Mathematics:Nature] where we can identity the subsequent stages of evolution [thus, we use to handle a coherent History of Mathematics - the *human* one, while we can't produce *future* Natural Mathematics].

Mathematics is innate in Nature and within the natural phenomena, while the mathematical capability is something which the human(*-istic)* mathematical order is <u>subjected to</u>.

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