Introducing Constructive Methodological Solipsism[1] `31/Mar/2009`

Motivation of the name:

The "laboratory of thought" is the one of a subject who can experience only–but necessarily–screens of colors. The subject must therefore arrive at a method to explain this hyper-simplified world[2]. Once this method is achieved, the world is made more and more complex in order to arrive at understanding how to *construct* worlds such as the actual one. The project is therefore a methodologically solipsistic one, where the subject's experience represents the foundational knowledge for the general knowledge of the world[3].

My very type of methodological solipsism has been called *Constructive Methodological Solipsism*, as it turned and turns out to be an extremely constructive project, based on a notion of verification.

It also shares some aspects with various forms of constructivism, and 'contructive' gives it also a positive touch.

Conceptual steps that originated *CMS*:

1)I do what gives me the most pleasure

2)I see that founding truth on evidence gives me pleasure, therefore I *decide* that I ought to found truth on evidence

3)The true probability of some evidence ought to be founded on that type of evidence by means of the 3 prescriptive principles that fulfil the previous point

4)That very probability ought to be used to make new decisions

5)Truth is founded on evidence by taking the value of probability that is believed to be conclusive. But this decision undergoes pragmatic considerations – as any other decision. Therefore there are two senses of true probability: obtained by the right method and rightly representative of the chance (and given that it is computed by the right method)

[1] www.luigigobbi.com

[2] Probably I've learnt this strategy from physics.

[3] A similar project was the Carnap's *Der logische Aufbau der Welt*; mine however would be more properly called *Der probabilistische Aufbau der Welt*.

6)Every philosophical or scientific claim ought to be evaluated by means of verifications by its contextual evidence.
7)For instance, the true ontology (of some problem) is contingent on the evidence by means of probability and therefore by means of verifications

Structure:
I present *CMS* as a unitary consistent body in 3 pages constructively, but as an "upside-down" construction. Then 30 pages of arguments in its support. Then about 300 pages of comparative arguments with the most important problems of the philosophical literature: application and confrontation of *CMS*.

Schematic draft of the foundation of *CMS*:

a)Any theory $\mathcal{T}_i$ is made of elementary parts ρ's that have the same chance of some evidence and have the same cause for that chance. Then the number of verifications V of *those* elementary parts by the evidence comes by two prescriptive principles:

- the number of verifications is proportional to the likelihood U_ρ of those elementary parts by the evidence (expressed by the multinomial distribution)
- the number of verifications is proportional to the number T_ρ of experienced pieces of evidence (on which the likelihood has been computed)

$$V_\rho = U_\rho \cdot T_\rho \tag{1}$$

b)The verifications of a general theory comes by a third prescriptive principle:

- the numbers of verifications is the sum of the verifications of its elementary parts unless an elementary part of the theory has 0 verifications: unless it has received no evidence yet to possibly verify it (therefore the whole theory is not yet verifiable) or unless it has been falsified (therefore the whole theory is falsified)

$$V_{\mathcal{T}_i} = \bigoplus_{\rho\in\mathcal{T}_i} V_\rho = \begin{cases} \sum\limits_{\rho\in\mathcal{T}_i} V_\rho \quad \text{if} \quad \prod\limits_{\rho\in\mathcal{T}_i} V_\rho > 0 \\ 0 \quad \text{if} \quad \prod\limits_{\rho\in\mathcal{T}_i} V_\rho = 0 \end{cases} \tag{2}$$

I call this notion of (non-conclusive) verifications of theory as *Prescriptive Verifications.*

c)The probability of a theory is its relative number of verifications:

$$\Pi_{\mathcal{T}_i} = \frac{V_{\mathcal{T}_i}}{\sum_j V_{\mathcal{T}_j}} \tag{3}$$

I call this notion of probability as *p*rescriptive *d*egree of *c*ertainty, or *PDC*.

d)The degree of truth of a theory holds when the degree of certainty is *conclusive* (this is an additional prescriptive principle). This occurs when we have infinite evidence to support it ($T_{\mathcal{T}_i} = \sum\limits_{\rho \in \mathcal{T}_i} T_\rho = \infty$; remarkably, if $V_{\mathcal{T}_i} = \infty$ then $T_{\mathcal{T}_i} = \infty$; 'infinite' is what pragmatically stands for "a lot"), or when the number of falsifications[4] is larger than zero ($\mathcal{F}_{\mathcal{T}_i} > 0$). But in these conditions of conclusiveness[5], the following holds:

$$\underline{V}_{\mathcal{T}_i} = \Pi_{\mathcal{T}_i} \tag{4}$$

I call this notion of the degree of truth of a theory as *p*rescriptive *d*egree of *t*ruth, or *PDT* and its symbol is $\underline{V}_{\mathcal{T}_i}$ (conclusive *v*erification).

d)When there are several options to choose from, and we associate a certain (conclusive) value of probability to the theory of experiencing a certain value of subjective happiness h_l at future time t from choosing option z_k now, then the prescriptive expected happiness is defined as

$$\sum\nolimits_l h_l \underline{V}\left(h_l, t, z_k\right) \tag{5}$$

and the prescriptive *p*leasure from option z_k is defined as the sum of the prescriptive expected happinesses over all future:

$$\mathcal{P}\left(z_k\right) = \sum\nolimits_t \sum\nolimits_l h_l \underline{V}\left(h_l, t, z_k\right) \tag{6}$$

Finally, the option to choose is the one that maximizes the prescriptive pleasure:

$$\underline{z} = \max \mathcal{P}\left(z_k\right) \tag{7}$$

I call this notion of option as *p*rescriptive *m*aximum-*p*leasure *o*ption, or *PMPO*.

e)Continuous cases are an easy generalization.

f)When a theory acquires conclusiveness (and this occurs just by a decision), it becomes evident, i.e., evidence – but, as any theory in general, it remains fallible.

[4]The number of falsifications of a theory is given by the sum of the (non-zero) exponents of the zeros of the likelihoods of the elementary parts of a theory.

[5]Here described for a theory of infinite domain, otherwise its *exhaustion* holds in general ($T^n_{\mathcal{T}_i} = T^{N_{hy}}_{\mathcal{T}_i}$).