

A Constructive Critique of Mario Bunge's Theory of Truth

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Abstract — Truth is the degree of accuracy when representing reality. We postulate three cognitive stages: the psychon, produced by perception; the construct, produced by intellection; and the speech act, produced by communication. Truth lies in the second; only constructs are alethic. Truth is a quality which takes place in degrees. Certainty is the unreachable perfect tip of this gradation, so it is an ideal concept. A thesis is deemed true if its alethic degree is acceptably efficacious, otherwise the thesis is deemed false. In other words, we deem true any thesis not having enough fails to deem it false.

Résumé — La vérité est le degré d'exactitude d'une représentation de la réalité. Nous postulons trois étapes cognitives : le psychon, produit par la perception ; le construit, produit par intellection ; et l'acte de parole, produit par la communication. La vérité se trouve à la seconde étape ; seuls les construits sont aléthiques. La vérité est une qualité qui vient en degrés. La certitude est le point d'aboutissement parfait et inaccessible de cette gradation ; il s'agit donc d'un concept idéal. Une thèse est réputée vraie si son degré aléthique est acceptablement efficace, sinon la thèse est considérée comme fausse. En d'autres termes, nous jugeons vraie toute thèse n'ayant pas assez d'échecs pour qu'elle soit considérée comme fausse.

Those who study knowledge, or who use it to study some theoretical or practical problem, take as a goal to represent reality in an accurate manner, i.e. to beget ideas informing the person about how it is the universe surrounding her, for her to get on

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successfully in it. A requisite entailed by this aim is to tackle one of the oldest and more important problems in philosophy: what truth is. All philosophical currents include this question in their problematics and diverse solutions struggle for acceptance. We propose a correspondence theory, built upon the Bungean theory of truth, which we try to complete.

We dismiss hermeneutic theories of truth because the concept they consider, wrongly referred to as “truth”, is distinct from the one we consider here. They are valid theories—the ones that turn out to be valid—, but theories about another issue, namely, conviction assessment. We postulate a radical distinction between, from one side, intendment² (*Erklärung* in German), which consists in the obtainment and organization of notions (as objective as possible) and which corresponds to honorness³, i.e. non-deceitful conveyance of facts and knowledge, and, from the other side, understanding (*Verstehen* in German), which consists in the obtainment and organization of convictions (sensibly subjective) and which corresponds to honesty, i.e. non-deceitful conveyance of feelings or desires or opinions. The former produces a system of ideas representing reality, whose only validity criterion is its resemblance to this reality. The latter produces a system of ideas that reorganizes this representation around the subject whose validity criteria are others, only retaining from the former system the principle of not transgressing truth.

Another class of alternative theories, reasonable but wrong, are those that identify truth with its hypernym, the justification of its validity (Sáez Rueda 1995, 176). This is the so-called “consensual theory of truth”, proposed by the current named “critical theory” and which in fact deals with one of the properties of the theses, namely, that they are acceptable. Once again, these are more or less correct theories about a distinct issue.

The best Bungean contribution to this question is not, as he said, definitive (Mario Bunge 2012). He continued investigating the problem because he knew that he had not found a satisfactory conclusion (Mario Bunge 2014, 149, 215; Romero 2015). The path starts on a smooth slope “as for the problem of truth as adequation, [...] all

² “Intendment” in the sense of “entender” in Spanish. (Ed.)

³ “Honorness” in the sense of “honradez” in Spanish. (Ed.)

realists believe in this ‘theory’ of truth, but no one has been able to formulate it” (Mario Bunge 2008); “all scientists use tacitly the so-called theory of correspondence or adequation of things to facts. But nobody has yet formulated this theory” (Mario Bunge 2009, 125). But it goes rather complex quite soon. Without his now impossible permission, we propose a plausible way of solving it.

1] Adequating The Mind to the Things

In order to elaborate our proposal, we offer two conjectures of our own: the theory of the three stages and the theory of cognitive maquetting.

Instead of the traditional scheme {fact → construct → speech act}, we propose three processes producing three cognitive stages: {fact → psychon⁴ → construct → speech act}. The first process is apprehension and consists of sensing or imagining a fact and processing the resulting image by means of a mechanism called “perception” that adjusts it to the cognitive system, in which it gets integrated. The second process is inference and consists of psychons combining with each other so they beget new psychons, more complex than them. This process resembles perception and increase the cognitive stock. Both mediate and immediate cognitive psychons get integrated in the cognitive system. The third process is formulation and consists of making a second representation: the constructs and its relations with signs that, by means of semiotic mechanisms, form a message, i.e. a communication act which allows another person to think a construct analogous to the one represented by the person who formulates. Note that the sender and the receiver may be the same person; in this case, the sender tries to make him or herself to think again a certain construct.

Truth is in the third stage, produced by the second process. Bunge claimed its distinction from the previous stage: propositions are alethic (i.e. they have the quality of being either true or false) (Mario Bunge [1996] 1999, 78); in their turn, it is impossible for concepts to be alethic. And he is also the one who found the yearned key in a revealing paragraph where he distinguished the idea,

⁴ A psychon is a collection of neurons interacting to produce an idea, or an idea’s part, or a collection of ideas. For this concept, see Bunge, 1983.

which is the factual mental element, from the proposition, which is its formal counterpart:

Thoughts are, unlike constructs, cerebral processes. Hence, there cannot be two thoughts completely identical. Nobody thinks twice in exactly the same manner the number 5 or the moon, at least we never experience exactly the same states. What we can suppose is that all thought processes producing the number 5 (or any other construct) use the same neural patterns, that is, they are equivalent in an essential aspect (Mario Bunge 2011, 176)

We add the distinction of the next stage. On the one hand, a proposition's alethic properties shall not be confused with its semiotic properties: the ways of formulating it and the ways of interpreting this formulation. On the other hand, they shall neither be confused with their social properties: their acceptance by the investigative community or by the society in which this is contained, and its validation as an argument in a debate among members of this community or this society.

In the second conjecture we tackle the problem of what is the representation of reality. One of the suggested solutions is Wittgenstein's (Wittgenstein [1922] 2012) pictorial theory: the mental representation and the represented reality are isomorphic. We excuse not to expound the vehement refusal it aroused and its profuse refutations. Nevertheless, we believe that Wittgenstein almost hit the mark. The mind does not reflect reality like a burnished surface, but it builds an image from cognitive pieces analogous to real elements⁵. This mental construction mimics the structure of a universe's fragment, and it does it by discarding some elements and adding others of its own. It is partial maquette, both defective and exceeding.

2] Formal Consistency

All constructs must abide the requisite of formal consistency if they are to possess the alethic quality, that is, if they are to be either true or false. The so-called "formal truth" is not an alternative or complementary truth, with its own theory, nor a component of truth, with its corresponding part in the theory, nor anything like

⁵ Tootell *et al.* (1982, 1998) and Kosslyn (in Gärdenfors 2014) demonstrate that cortical neurons order themselves in a way that configure the perceived object.

this. Our conjecture opposes the deflationary theories, led by Tarski, which conflate the test of epistemic theories, a task for epistemology, with the test of epistemological theories, also a task for epistemology (Tarski 1944). Put otherwise, they conflate the analysis of truth with the analysis of the theory of truth.

Bunge seemed to agree: one has to distinguish the alethic status a proposition has, from whether it is correct or wrong to attribute it to the status (Mario Bunge [2006] 2007, 354)⁶. But he swung from distinction—testing formal validity must precede testing truth or falsity, which is factual by necessity (Mario Bunge 1959, 72)—to indistinction—it is incomplete and thus flawed that a theory does not satisfy the two classes of truth: formal and factual (Mario Bunge 2014, 203)—, and this alternation is one of the hurdles that impeded him to bring a solution to the problem. He even took a stance near to ours (Mario Bunge and Mahner 1997, 129): we need a theory of coherence to tackle “formal truth” and a theory of correspondence to tackle “factual truth”. Had he remarked and maintained the distinction, he would have made a crucial stride in the matter.

3] Truth as a Privative Concept

Abstractions are concepts without real correlate, but useful as epistemic supports. For the present inquiry we are interested in those based on negation. Shortage consists of an ens (a being) possessing a quality in less quantity than it is normal for the entia of its category. Lack consists of an ens not possessing a quality that the entia of its category used to possess. Defective concepts are those which consist of a lack such as bald or amputee. Privative concepts are those which consist of a shortage such as cleanness or security. Ideal concepts are those which consist of a zero degree of shortage, which *ex hypothesi* is unattainable, such as immaculateness and certainty. Rebic⁷ concepts are a class of negative concepts consisting not in the possession of a differential quality but in denying a quality or property. Some rebic concepts are “non-smoker”, because it cannot be specified what a person has to do to qualify as

⁶ Besides, truth and knowledge are interdependent. Marquis is wrong when he says that knowledge is independent of truth since some animals are able to know without needing it. He conflates truth per se with truth as a subject matter (Marquis 1990).

⁷ We coin both the concept and the term. The word comes from the mythological character Rebis.

this, and “atheist”, for there is no set of beliefs that a person has to profess in order to be this. Rebic would be the contrary concept for “bald” or a concept opposite to “vegetarian” and “vegan”. Rebic concepts are “active voice”, “direct problem” and “darkness”. However, neither “right-handed” nor “heterosexual” are rebic, because, contrary to the non-smoker”, these persons do perform actions that characterize them as such.

And, finally, the conjecture. Truth and falsity are two intervals in the same gradation: the degree of structural correspondence of constructs with the elements of reality that they represent. The uppermost degree of correspondence is unreachable, so truth is necessarily partial and meliorable. A proposition may be more or less truth, or else more or less false. Between truth and falsity there is a threshold, that is, there are liminal cases amid them in which the distinction is not clear. Both *gnosis* (daily knowledge) and *episteme* (professionalized knowledge) narrow this threshold. As it can be said of any acceptable proposition that it has a degree of truth, it can also be said that it has a degree of falsity. Unacceptable propositions also have a degree of falsity, albeit it uses to be omitted, for the sake of clarity, in which tiny degree they are true.

Bunge argued that, “strictly speaking, no theory can be assigned a truth value, because this assignation requires to check its infinite formulas” (Mario Bunge 1983, 6:137). We reply that only actual ideas, whatever they are, are that which is under consideration. Said otherwise, the expressed ideas are propositions whose veracity is to be evaluated. We also rebut the traditional thesis: “false: untrue” (Mario Bunge 2003, 105). According to our theory, “true” is defined as “unfalse enough”.

4] Conclusion

This article proposes a readjustment of the investigation of truth. Firstly, taking it back to its original track: to fit as tightly as possible what one thinks of what indeed takes place. There are other intellectual activities which thoughts abides to distinct criteria; these are not truth, which is exclusive to intellectual activities of knowing. Secondly, restating this centenary approach. Instead of considering the positive aspect, that inevitably drains from the epistemologist's hands, its reverse is what ought to be considered. This is the real alethic substance, the property possessed by propositions and

inquirable in them. The first movement follows Bunge's steps; the second departs subtly from him, perhaps (we hope) to the crux of the matter.

In order to sustain this eversive thesis we have postulated: (i) a formal thesis to distinguish factual truth testing from formal consistency testing, the latter a requisite for truth and not a part of it; (ii) a theory amid ontology and semantics to explain negative abstractions; and (iii) two theories belonging to applied psychology: on the stages of the formation of knowledge and on the structuration of knowledge.

We think that our restatement of the classical approach to truth may be productive for enhancing theoretical and practical advances in this field and as a reference to evaluate other theories of truth by comparing their postulates and conclusions with theirs.

References

- Bunge, Mario. 1959. *Metascientific Queries*. Springfield: Charles C. Thomas.
- . 1983. *Treatise on Basic Philosophy: Epistemology and Methodology II, Understanding the World*. Vol. 6. 8 vols. Dordrecht: Reidel.
- . (1996) 1999. *Buscar la filosofía en las ciencias sociales*. Mexico: Siglo XXI.
- . 2003. *Philosophical Dictionary*. Amherst: Prometheus Books.
- . (2006) 2007. *A la caza de la realidad: la controversia sobre el realismo*. Translated by Rafael González del Solar. Barcelona: Gedisa.
- . 2009. *¿Qué es filosofar científicamente? y otros ensayos*. Lima: Universidad Inca Garcilaso de la Vega.
- . 2011. *El problema mente cerebro: un enfoque psicobiológico*. Madrid: Tecnos.
- . 2012. "The Correspondence Theory of Truth." *Semiotica*, no. 188: 65–75. <https://doi.org/10.1515/sem-2012-0004>.
- . 2014. *Memorias: entre dos mundos*. Barcelona/Buenos Aires: Gedisa Editorial/Eudeba.
- . Letter. 2008. "Carta de 1988-07-08 a José Ferrater Mora des de Montreal (Canadà)," July 8, 2008. <https://dugifonsespecials.udg.edu/handle/10256.2/174>.
- Bunge, Mario, and Martin Mahner. 1997. *Foundations of biophilosophy*. Berlin-Heidelberg-New York: Springer-Verlag.
- Gärdenfors, Peter. 2014. *Geometry of Meaning: Semantics Based on Conceptual Spaces*. Cambridge, Massachusetts: The MIT Press.
- Marquis, Jean-Pierre. 1990. "Partial Truths about Partial Truth." In *Studies on Mario Bunge's Treatise*, edited by Paul Weingartner and Georg Dorn, 61–78. Amsterdam: Rodopi.

- Romero, Gustavo E. 2015. "El Último Humanista. Una Entrevista a Mario Bunge." *El Último Humanista. Una Entrevista a Mario Bunge* (blog). 2015. <https://blogfilosofiaenlared.blogspot.com/2015/01/el-ultimo-humanista-una-entrevista.html>.
- Sáez Rueda, Luis. 1995. *La reilustración filosófica de Karl-Otto Apel: razón dialógica y fundamentación última*. Granada: Universidad de Granada. <http://hdl.handle.net/10481/22467>.
- Tarski, Alfred. 1944. "The Semantic Conception of Truth: And the Foundations of Semantics." *Philosophy and Phenomenological Research* 4 (3): 341–75.
- Tootell, Roger B. H., Martin S. Silverman, Eugene Switkes & Russell L. de Valois. 1982. Deoxyglucose analysis of retinotopic organization in primate striate cortex. *Science* 18(4575). 902–904.
- Tootell, Roger B. H., Eugene Switkes, Martin B. Silverman & Susan L. Hamilton. 1998. Functional anatomy of macaque striate cortex II. Retinotopic organization. *Journal of Neuroscience* 8. 1531–1568.
- Wittgenstein, Ludwig. (1922) 2012. *Tractatus logico-philosophicus*. Translated by Jacobo Muñoz and Isidoro Reguera. Madrid: Alianza.

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