

Science with Tendency

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Abstract: The phrase “*art with tendency*” is accepted and utilized in various branches of creative activities. The expression “*science with tendency*”, proposed in this paper by linguistic analogy, describes false demonstration approaches of arbitrary theses, under violation of well-established research principles. In a general context, characterized by several disputes on recognized scientific and cultural values, some demystification attempts can be easily described as science with tendency procedures. Examples of such false scientific demonstrations are given related to the most prominent myth of the Romanian culture, the national poet Mihai Eminescu. A case study of the famous poem *La steaua* [To the star] reveals, through examples, the lack of a real scientific analysis in certain authors’ aim to “prove”, by any means, their beliefs or assumptions.

An original model for the evolution of the myth is proposed in this paper. This model facilitates a well-balanced attitude in analysing representative works, according to the ancient principle “*sine ira et studio*” and honest research rules. Science without tendency is the real basis for a proper evaluation of our national values and preservation of our identity in the new globalized world.

1 Introduction

The paper presents tendencies that affect the scientific approach to the study of symbols of identity. As such, in the second section, the tendency of dismantling the myths is treated, with reference to the Eminescian myth and to the masterpiece *La steaua* [To the star]. The third section is devoted to the tendency of linking to the myth, which can bring image benefits to those who practice it, but seriously affect the outcome of research. The fourth section exemplifies, using the same Eminescian model, the fast approach of science without other tendency than the service of the truth.

In the fifth section, a mathematical model of the evolution of symbols of identity is proposed. The main advantage of the model is that it allows understanding the myths as phenomena of resonant perception and comparing them regardless of their location in real historical time.

2 The tendency of demythification

The history teacher L. Boia is famous for being a national demythifier [1]. This is a

fact, although the distinguished author is convinced of the strength and the inevitable presence of myths and of their role in setting high goals at individual or community levels. [2]. The deconstructive impulse, motivated by the non-reality of myths, could not stop before the high emotional representation of the Eminescian myth. Surprisingly, but in a credible manner, L. Boia says that he feels the poetry of the Romanian classic poet and that he knows many of his lyrics by heart. However, the admiration of the historian is limited to Eminescu the poet, without covering Eminescu the ideologist. According to L. Boia, Eminescu's ideology was, is and will be promoted by nationalists, from who the demythifier keeps apart.

However, when demythifying Eminescu, the historian attacks the poet, probably because the ideological shortcomings seemed too obvious. Unfortunately, critical demonstration is under a fake seal, which envisages the tendency of demythification at any price: the cover presents the classic

Romanian car parked on the opposite lane, near a no-parking sign (Figure 1). Perpendicular to the street, a horse harnessed to the cart chews the grass placed near the car illegally parked. One may accept that on a side street in a small town, a cartman feeds his horse. However, more bizarre than the position of the harness and of the car is the fact that the driver sits impassively in the car. Fake is obvious.



Figura 1. The illustration with tendency on the volume cover [2].

However, the tendency and the sufficiency of the author appear in the treatment of the Eminescian particular myth. It is stated that "literary speaking, *La steaua* is an average poem, rather schoolish". Considered an unoriginal work, "only a process, and even a simple translation from German, after *Der Stern* by Gottfried Keller", Eminescu's jewel could not count as "supreme mixture between science and literature." The truth is that *La steaua* is clearly superior to Keller's poem, who, however, had the first idea of comparing the physical phenomenon of light propagation to the more-complicated psychical reality. The difference between the two creations corresponds to the shift from a reasonable poet (Keller) to a great poet (Eminescu). Scientifically speaking, by introducing a new stanza as compared to the German poem, *La steaua* includes a full and separate description of the three phases of the existence of the star (birth, activity and death). In addition, the description is more rigorous: light propagation time is finite ("thousand years"), not infinite

("Ewigkeit"). In prosodic terms, Eminescu's poetry flows smoothly, with a double rhyme in each stanza. Keller's poetry is tiresome ("dein Aug'," "o, Lieb' ") and only provides a simple rhyme. But the weakest point of the German poem is the last stanza, in which the physical phenomenon is mixed with the psychological message: the girlfriend is predicted that she would die before the poet. In the case of Eminescu, it is not about the bodily death but the death of the feelings. There are things that L. Boia does not see, since he is driven by the tendency of demythification.

3. The tendency of linking to the myth

The vicious attempt to link oneself to the Eminescian myth could not be more evident in [3]. The volume could be accepted, however, with the ordinary meaning of a "science-fiction comment", as the subtitle sounds. Nevertheless, the author pretends that his text is purely scientific, the fantastic character arising only from extraordinary truths which he reveals: "para-normal is something normal in development", "many are still sleeping but some are starting to wake up ...".

So urgent is the tendency of linking to the myth, that even the saying of the poet is censured if it would somehow harm the mythical aura. Thus, after reproducing "the renewed pleasure of reading" the four stanzas of *La steaua*, I. Câmpan writes: "In one place, he (Eminescu) confesses that he wrote this poem to imitate a certain G. Keller. Others believe he was inspired by a German version of a book published in London in 1834, written by Ch. Bell. (...) We do not know if the assertions truly belong to Keller, Bell or Eminescu". Placing himself against the great critic G. Călinescu, who allegedly "could not" understand "physical theories" of the Eminescian texts, the physics professor Câmpan states: "In the first three stanzas, there is a perfect clarity and absolute correctness of relationships in space-time continuum, fully valid even today." In fact, the first three stanzas of *La steaua* are based

on a single scientific truth, namely that the propagation speed of light is finite. Much too confident in his scientific competence ("I am aware that this study cannot be understood even by everyone."), the high-school teacher presents Eminescu as a senior scientist: "He is not he a scientist in the strict sense, but in a much broader and more essential sense".

To say more about the logical and linguistic deficiencies in the comments of this author is useless. We highlight, however, two ways in which I. Câmpan attaches to the Eminescian myth. One is based on numerology: "From the circle of Eminescu, Caragiale was born in 1852 and I in 1952, on January 1. I do not take the comparison further. I was born Tuesday, Capricorn, and Eminescu was also Capricorn (...) I turned 50 on Tuesday, and he 152 on Tuesday, as well. See the figures 50-52." "In another attempt to get closer, the author exploits his name:" Where do I want to get? We know that Veronica Micle as a maiden was named Ana Câmpan, like her mother, a midwife etc."

The tendency of linking to the myth of the national poet can be found in a somewhat sophisticated form at the doctor V. Ene. He aims to identify "scientific predictions in the work of Eminescu" [4] and even to confront the poet, in terms of science, with the scientist A. Einstein [5]. The last scientific prediction "discovered" by Dr Ene in the Eminescian writings is the "imaginary time", introduced by the astrophysicist Stephan Hawking. Thus, in the novel *Sărmanul Dionisos* [Poor Dionysus] where Eminescu imagines a travel back in time to the days of Alexander the Good, the doctor is convinced that his talent for reciting serves him to "unravel the mysteries of Eminescu", and he believes that he found the prediction of the concept of imaginary time. He imagines that the content-empty phrase of the imaginary time ("We called this time imaginary time for something like that was never thought by any mortal until Eminescu, nor afterwards")

allows a regression in time (why not in real time?) to facilitate, as a "memoirist", a meeting between Eminescu and Einstein. The pages in question could be read in the science-fiction register. In such a context, even the scientist's delighted amazement at the meeting with Eminescu could be accepted ("Einstein: Extraordinary! You really are a great poetic genius, but also a great scientific genius! You amazed me! I hope we meet again.") We emphasize that it is Einstein who is speaking, who, after the actual interview with Nobel laureate Rabindranath Tagore, said: "the dialogue with Tagore was a disaster ..." It is understood that Eminescu, who became for the memoirist "my friend", does not know how to thank for "the idea of meeting during this imaginary time": "Eminescu: My dear, you're right! It was me! Your imaginative view can be envied. You can tell the world what you have found, because it correspond to the truth!" The wonder is that, beyond clumsy expressions, V. Ene seems to be convinced of the reality of time travel, as well as of the value of his discovery: "...I am satisfied that we have achieved this meeting, over centuries, in imaginary time, which will remain an important Eminescian prediction discovered by the under-signed."

It is not the place to analyse the psychological substrate of the tendency of linking to the myth. We are pleased to see that the two cases present an increase in self-esteem and in the consideration of the peers. Certainly, Eminescu has no guilt and no gain from such overbidding of the myth. Moreover, a definite Eminescian prediction appeared just in such circumstances: "High above the rest, a pygmy will then set out to discourse, / Not to emphasize your merits but to praise his own, of course; / For your name is just a pretext." [Translated by Leon Levitchi]

4 Science without tendency

The lack of any tendency except for revealing the truth is the nature of what we

call science without tendency. Compliance with the classic dictum "*sine ira et studio*" and the honesty of the critical approach can be found in many papers regarding the particularity of the myth of Eminescu, as discussed above. Thus, as a proof of evidence, in [6] the compared creations are presented in full compared, both *La steaua* and the poem of G. Keller. It is worth noting the seemingly minor fact that the German "Romance" is presented under the correct title *Siehst du den Stern?*, and not simply and inaccurately, *Der Stern*, as in many other cases.

Exemplifying with lyrics from both creations, M. Dragomirescu shows in [7] how Keller's honourable poem becomes a masterpiece in Eminescu's vision. A meaningful analysis envisages "destructive capital defects" of German opera, including the "tactlessness" of the poet in predicting that his beloved would die before him. In the same rigorous vein falls P. Caraman's comparative analysis [8]. After revealing the "ultra-specific state of individualization" of Keller's poetry, the critic shows that in the case of Eminescu "the generalization process is perfect". As shown in the manuscripts of the poet, the final form in four seemingly simple quatrains ("schoolish?") of the masterpiece *La steaua* resulted from a laborious process of concentration since "the trial versions have each eight quatrains."

An ample and provocative critical contribution of the Eminescian myth, focused on the time interval (1870-1900) is brought by I. Costache in [9]. Classified within the meaning of G. Călinescu, under the genre musical romance, *La steaua* is doomed to the "negotiation of the maximum degree of accessibility", that is, "it concerns a public for which the lachrymatory tendency is crucial". Is this the case? Considered as "full of original and fertile ideas", the book also highlights the great expressive dexterity of the young author. Thus, *La steaua* is shown as a "philosophical poem", "a poetic text with a

bipolar configuration, which is not however in the nature of the traditional romance: one pole equipped with an elevated and meditative expression, and another pole built on a sensitive model, etc." Reading these texts, undeniably elevated, one may nevertheless have the feeling that they are placed as a semi-opaque veil over the crystal clarity of the work analysed.

The most recent title to illustrate genuine literary criticism without damaging tendencies, of the Eminescian case, is due to A. D. Rachieru [10]. The demanding surveillance of the expression, characteristic of the style of this author, does not hinder reading. Analysing the Eminescian myth, the critic finds "under the pressure of globalization, and the plight of the national canon, subject to deconstruction from the inside", i.e. demythifications of all kinds. The canonical Grama followers, "hoping to remain in the history at least as denigrators, reserve themselves a sad glory". On the other hand, the "idolatrous eruptions" manifested especially at anniversaries are disapproved of. In the author's conception, for the myth of Eminescian identity "the real test remains reading".

A model for the evolution of the myth

To express the momentary power, P , of a symbol of identity like the myth, we propose a formula inspired by the theory of the resonant electric circuits:

$$P = \frac{P_r \cdot Q \cdot t_r}{\sqrt{1 + Q^2 \cdot (t_r - \frac{1}{t_r})^2}} \quad (1)$$

where: P_r represents the lasting power of the symbol, Q is the index of the resonance and t_n is the normalized time, $t_n = t/T$. Please note that t denotes real physical time and T is the time required for the identity symbol to reach the maximum of visibility through a process of resonant reception. Using the normalized time instead of physical time has the advantage of facilitating comparisons of the evolution of various symbolic powers.

It may be proven that the power of the symbol, according to the relation (1), reaches the peak

$$P_{max} = 2P_r \cdot \frac{Q^2}{\sqrt{4Q^2-1}} \quad (2)$$

at the normalized time

$$t_{nmax} = \sqrt{\frac{2Q^2}{2Q^2-1}} \quad (3)$$

It results that t_{nmax} is slightly over-unity. Accordingly, for $Q=3$ and $P_r=40$, $t_{nmax} \cong 1,029$ and $P_{max} \cong 121,7$ while for $Q=2$ and $P_r=10$ the following values are obtained: $t_{nmax} \cong 1,069$ and $P_{max} \cong 20,6$. The significance of the resonance index becomes clear if the relation is observed:

$$Q \cong P_{max}/P_r \quad (4)$$

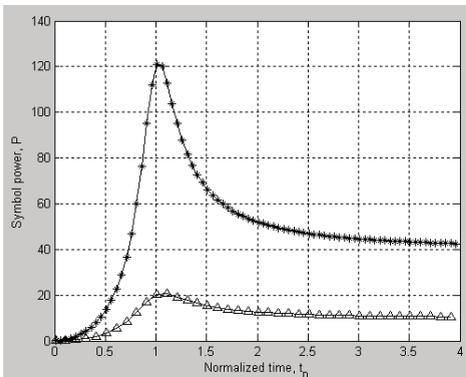


Figure 2. Evolution of the symbolic power in t he cases of M. Eminescu (*) and P. Cerna (Δ).

It is known that a model is the simplified and approximate representation of a reality. It is also known that any attempt to catch in rigorous mathematical relations, the phenomena of human nature, loaded with subjectivity, is audacious.

What relevance can have the fact that based on the relationships proposed above, for $Q=3$ and $P_r=40$, the evolution of the power of the Eminescian symbol of identity shown in Figure 2 can be obtained? What meaning can have the fact that for $Q=2$ and $P_r=10$ results the evolution of the symbol of identity of the poet P. Cerna, also represented in Figure 2? The answer is that

a picture speaks more than a lot of words. The alignment to the start of various symbols of identity, regardless of their position in real historical time and the use of normalized time on abscissa allow the comparison of different myths. The model clearly expresses the idea that myth is the result of a resonant reception linking the symbol of identity to its era.

It would certainly be an abuse of interpretation to read in the graph the mathematical ratio between the powerful Eminescian myth and the frail symbol of poet Cerna. Nevertheless, the model clearly shows that the Eminescian symbol is resonant and has unequalled, if not unrivalled powers.

The resonant reception [11] justifies in the case of Eminescu the formulations: "full expression of the Romanian soul" (N. Iorga), "the complete man of the Romanian culture" (C. Noica) or "the national poet" (G. Călinescu, [12, 13]. To consider these phrases "intemperate and hostile to the critical spirit" [14] denotes lack of understanding of the resonance phenomena.

However, the proposed mathematical model suggests the possibility of an identity symbol whose development has not had a resonant reception. Indeed, for $Q = 1/\sqrt{2}$ t_{nmax} is infinite. If Q decreases even more, t_{nmax} becomes an imaginary time (radical of a negative number). For example, Figure 3 shows besides the discussed case of the poet Cerna, the graph for $Q=0,5$ and $P_r=15$. It describes adequately the case of I. Budai-Deleanu, the author of *Tiganiada*, whose recognition, increased over time, surpassed the power of the Cerna symbol, without ever having an age for resonant reception

Conclusions

The paper presents two tendencies that affect the process of critical research of myths of identity: the tendency of demythification and the tendency of linking to the myth. In parallel, the approach of science without tendency is considered. All these critical approaches are applied to the

most powerful Romanian myth of identity, that of the national poet.

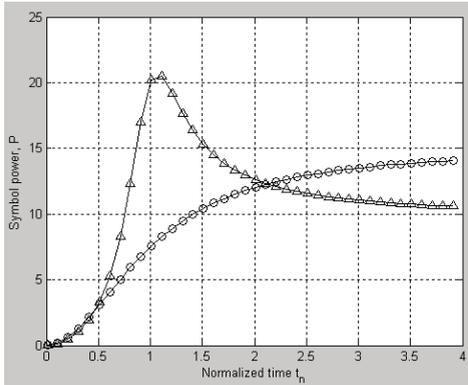


Figure 3. Evolution of the symbolic power in the cases P. Cerna (Δ) and I. Budai-Deleanu (o).

The paper also proposes a mathematical model of the myth of identity as phenomenon of resonant reception. The model has the advantage of allowing comparison of different symbols of identity; it explains the naturalness of some phrases otherwise difficult to accept and the continuous evaluation of symbolic powers.

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