

Drums of Doubt: On the Rhythmical Origins of Poetic and Scientific Exploration

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ABSTRACT:

In his article “Drums of Doubt: On the Rhythmical Origins of Poetic and Scientific Exploration” Caius Dobrescu argues that even though the sciences and arts of doubt have never been connected to the notion of rhythm, doubt is a form of energy, and more specifically, a form of vibration. It implies an exploratory movement that constantly expands and recoils in a space essentially experienced as uncharted territory. Poetry acquires cognitive attributes through oscillatory rhythmic patterns that are explorative and adaptive. In order to test this hypothesis, the essay focuses on the nature and functioning of free verse. This modern prosodic mutation brings about a dovetailing of the rhythmic spectrum, but also, and more significantly, a change in the very manner of understanding and experiencing rhythm. Oscillatory rhythms are broadly associable with entrainment indexes that point to the adaptation of inner physiological and behavioral rhythms to oscillatory environment stimuli. Free verse emerges from the experience of regaining an original explorative, adaptive, and orientation-oriented condition of consciousness.

Keywords: skepticism, oscillation, free verse, poetics of exploration, entrainment, uncertainty.

Generally, rhythms are perceived as successive manifestations of an impetus. In the words of language scientist Laszlo Hunyadi, “when using the word *rhythm* we often think of a sequence of pulses of some sort that contribute to the structural sensation of an even” (“Grouping, symmetry” 31). Nevertheless, phenomenological studies of time and movement tend to go against this substantive acceptance and rather support the assumption that rhythm should be conceived in terms of relations. Applying Merleau-Ponty’s theory of the invisible to the work of Proust, Jessica Wiskus perceptively notes: “Rhythm is not derived from a particular external object through the operation of the senses, nor from

an interior image of the past, through recollection or imagination; it is not the object or subject that constitutes rhythm. Rather, rhythm is a structure that binds the past and present, subject and object, ideal and sensible" (Wiskus, *The Rhythm* 120).

In an even more daring vein, István Berszán proposes that rhythm is a prerequisite of cognitive experience, that it generates dynamic scapes and that "reality" could be understood as a constant oscillation and transgression between such scapes (*Empirical Research*). Berszán's theory also focuses on the self-orientation of personal and/or social entities, a process essentially defined by "attention" (*Land-rover*). The rhythms of self-orientation are both quantitative and qualitative, i.e. both deterministic and intentional, and allow for a qualitative differentiation, or typology. Actually, by positing qualitative differentiations of rhythms, i.e. the existence of rhythmic qualia, Berszán makes rhythm determining element of his vision of literature as a cognitive process.

I will draw on the core-attributes of the above-mentioned theories – connectivity and cognition – in view of exposing the meaningful link, retrievable from the analysis of specific literary circumstances, between rhythm and doubt. I am perfectly aware that doubt, be it cognitive or ethical, is not easily associable with rhythm. Poetry has rather been described as originally linked to psychagogic discourse, i.e. to rhythm-induced states of individual or collective trance (Walker *Rhetoric* 13), and trance is notoriously incompatible with doubt. Poetic trance is an assent to let go, premised on the tacit confidence in protective cultural frames. This "abandonment" is a manner of suppressing the potential hostility of environmental Otherness, either by an imaginary act of recoiling, of self-enclosing or self-containment, or by an equally phantasmagoric absorption of Otherness. This type of experience is, most probably, designated by Emmanuel Levinas, when he states that "in rhythm, there is no longer a oneself, but rather a sort of passage from oneself to anonymity ... Consciousness, paralyzed in its freedom, plays, totally absorbed in the playing" (*Reality*: 132). At the same time, the pulsatile pattern exemplifies symbolic and psychic insulation, rhythm-induced aspirations to invulnerability, that is to say to self-centeredness, as suggested in the notion of "rhythms of will," devised by Matthew Campbell in order to capture the specificity of Victorian poetry (*Rhythm*). But this is definitely not the only kind of pattern relevant for the rhythmic condition of poetry. The cognitive oscillation generated in contact with an unfamiliar object or space is in itself a powerful generator of rhythmic progression. This dynamic could be called elliptic, in the geometrical meaning of "image of the geometric figure that is generated from two foci at once," metaphorically used by David Damrosch in his attempt of redefining World Literature: "Contemporary America will logically be one focus of the ellipse for the contemporary American reader, but the literature of other times and eras always presents us with another focus as well, and we read in the field of force generated between these two foci" (Damrosch, "World Literature" 18).

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Under the circumstances of advancement in unknown territory, rhythm exercises a significant and formative pressure on brain activity, and on consciousness in general. Its influence concurs to the defragmentation of a diffuse and disseminated sense of Otherness – into the closure and comfort of a unified mental object that becomes a balancing pole to the cognitive self. A pole that plays, in analogy with the above elliptic allegory borrowed from David Damrosch, the role of a second focus of the rhythmical ellipse. The rhythm of cautious advancement of the subjective pole of the ellipse is shaping up the pole of the unknown, it regulates, controls and, to a degree, humanizes it. Consequently, the object supposed to confront the subject comes to be construed as an equivalent subject of sorts. This led some researchers of the cognitive dimensions of literature to connect it to an alleged inborn and psychologically unsurpassable animism. It has been contended that the attribution of intention, design, impulses and emotions to both animate and inanimate entities that are part of our environment is deeply wired into our brains. We cannot escape it, no matter the rationalization undergone at the superior, i.e. fully self-aware, levels of our mind (Slingerland, *What Science*). But this limit should not be perceived as a limitation. The connection between an analytic notion of rhythm and an averted and amended, to wit enlightened anthropomorphism in the advent of both modern epistemology and modern poetry has been robustly identified and exposed:

In the light of the process philosophers' emphasis on personal aspects and dimensions of knowing, their theory of perception bears interestingly on the problem of the reflexiveness of knowledge, and it helped to prepare the way for the self-aware and intentional reflexiveness in the works of Stein, Stevens, Williams, and Dos Passos. For Bergson and James, since it is a delusion to pretend that any rationalistic ways of knowing are free of personal, cultural, and biological bias one ought to strive for a self-projection that is self-aware, imaginative, wholly intentional, and essentially sensitive to details unlike oneself and one's expectations. Since whatever one does, one can only project oneself into the object of knowledge, best is to do it consciously (Martin, *American* 89).

In what follows, I attempt to substantiate the hypothesis that poetry can acquire cognitive attributes through oscillatory rhythmic patterns that are explorative and adaptive. The oscillatory rhythms that I have in mind are relational, they have no underlying substance, or substantive energy to define and determine them. They are vibrations developed between foci. In the following, I use “oscillatory” as opposed to “oscillating.” This semantic nuance bears very important consequences. An

oscillating rhythm is heterogeneous, because subjected to inner variations or distortions of its pulsatile energy, while an oscillatory rhythm is a movement between foci, qualitatively differentiated from pulsatile movements. My focus will be on this latter rhythmic pattern, I specifically associate with cognitive processes understood, following Istvan Berszán's suggestion, as forms of orientation in uncharted territory, i.e. in un-predictable environments.

In order to test the hypothesis that rhythm, exploration, and doubt are closely knit together and that this connection has actual effects on the literary field, I will focus on a literary invention that came to be perceived as natural (at least by dedicated hermeneutic communities) to a point that seems to render explanatory theories utterly superfluous: free verse, or *vers libre*. This mutation brought about a dovetailing of the rhythmic spectrum, but also, and more significantly, marked a change in the manner of understanding and experiencing rhythm suggestively captured in the following definition: "What I recognize as good free verse is verse which does not scan regularly but is always on the verge of scanning regularly: which is neither strictly in pure stress meter, nor stress syllable meter, nor quantitative meter, nor pure syllabics, but which often seems to be getting near to one or other of these, perhaps attempting to fuse two of them, perhaps deliberately alternating between one and another" (Fraser, *Meter* 74).

The origin intuitively ascribed to poetic rhythm is largely physical: it is seen as a means of mobilization and coordination (Bücher, *Arbeit*). A significant part of poetic modernity is resonant with this description – especially as far as revolutionary commitments are concerned, as in the case of the poetical drums holding the tempo of the Bolshevik revolution, the one of Vladimir Mayakovski being internationally resonant. But, significantly enough, Mayakovsky, and agitatoric poets in general hardly ever used free verse. Actually, metric libertarianism never caught roots within Soviet poetry (Gronas, "Why Did"). This could be a useful intimation of the fact that the needs and aspirations that fueled the emergence of free verse were not directly connected to the Geist of social revolution. This allegation seems to contradict the emotional shock generated by the emergence of non-disciplinarian prosody. G. S. Fraser suggestively evokes "the caution with which free verse was mentioned around 1915, when it sounded much like 'free love' and was attacked on moralistic grounds" (Fraser, *Meter* 13). Considering that a radical like Max Eastman could pout, in 1916, over metrical freedom, calling it "lazy verse" (quoted in Beyers, *A History* 16), it is less surprising that even sophisticated conservatives associated free verse with the radical ideas that they feared or execrated. Analyzing Margueritte Yourcenar's 1929 essay *Diagnostic de l'Europe* (European Diagnosis), Erin G. Carlston notes that "the piece culminates in an attack on surrealism, primitivism, free verse, and other modernist forms, couched in the same medical terminology as Max Nordau's *Degeneration*" (Carlston, *Thinking* 95). But at the very same time Ezra Pound, definitely a far more radical conser-

vative than Yourcenar, supported with equal polemical acumen the idea that, far from threatening the intellectual condition of classical poetry, free verse represented the only way to restore its original radiance. “If the earnest upholder of conventional imbecility” writes Pound in 1918, “will turn at random to the works of Euripides ... or to almost any notable Greek chorus, it is vaguely possible that the light of *vers libre* might spread some faint aura upon his cerebral tissues” (Pound, “Vers libre” 93).

This trans-partisan nature of free verse might suggest that the generative connections of the new rhythms should rather be looked for in the more ideologically neutral spheres of scientific knowledge and empirical research. Joycean scholar William Martin notices that: “For the purpose of studying the development of modernist poetry, free verse, and prose, the interaction between the fields of experimental psychology and prosody is of particular interest to the literary critic, as the theories of rhythm developed during this time not only worked to *motivate* the creation of new poetic forms, but also served to *legitimate* the stylistic experiments of modernists such as Pound, Yeats, and Joyce” (Martin. *Joyce* 2). Free verse, i.e. a verse devoid of both the homogeneity of meter, and of the imperative of rhyme, did not abandon, but actually developed the notion of rhythm, premised not on the self-empowering pulsatile propagation (which makes it compatible, as suggested above, with the arts that propagate faiths, i.e. with propaganda), but on the tentative oscillatory-adaptive exploration generated by cognitive doubt. The option for the oscillatory rhythm of free verse is the expression of a shift of basic attitudes from a) the assertive propagation of a sense of self, to b) an adaptive experience requiring the radial and rhythmic expansion of the field of perception. Free verse emerges from the attempt of regaining an original explorative, adaptive, and orientation-oriented condition of consciousness. According to Romanian poet and literary theorist Alexandru Muşina, this process of recovery is inherent to the nature of modern poetry:

The manner in which modern poetry is perceived, together with its articulation and communication, are direct consequences of this (new?) function of poetry, that I provisionally call the function of exploration. Any modern poetics is a poetics of exploration. This exploration can be construed by the poet as objective, “scientific,” or as subjective, a personal adventure, a navigation based on secret maps, or à l’aveugle. All the walks of modern poetry, beyond their diversity, have in common the displacement of the center of gravity of the poetical démarche: from *mimesis*, *ingenium*, or *expression of emotion*, to *exploration* (59). ... modern poetry doesn’t replicate reality, it explores reality, doesn’t express emotions and perceptions, it explores

the emotions and perceptions, doesn't joggle with the possibilities of the language, it explores the limits and essence of language... (Muşina, *Paradigm* [*The Paradigm*] 61).

If we apply Muşina's concept of poetics of exploration to prosody, we can understand why free verse might be perceived as a mutation of the very condition of rhythm. Even if fantasizing over (predominantly male) vitality, and tending to rise it to a corner-stone value, *fin-de-siècle* Decadent poetics actually displays an explorative and analytical interest in the rhythmical energies of the body. Antecedents can be detected in the lyrical prose of Rimbaud, Lautréamont, or Nietzsche, where the exaltation of vitality is clearly divorced from regular meter. The moment vital energy becomes an object of reflexive inquiry, for both philosophy, with, say, Schopenhauer, and the natural sciences, with Berzelius, but also of esoteric para-sciences such as Mesmerism, spiritism, or theosophy (Mitchell, *Experimental*), the monopoly of pulsatile rhythm over poetry is implicitly called into question. The pulsatile-assertive rhythm becomes itself an object of attention and of exploration (here, the concept of Alexandru Muşina comes in handy). Free verse does not only offer an escape from a traditional, homogeneous vision of meter, but it also implies a state of acute rhythm-awareness. It is not simply a new versification technique, it is an instrument of exploration of notions, i.e. mental territories, previously taken for granted, such as "life" or "consciousness." The reflective energetism of Expressionist poetics, of Surrealist automatic dictation, or of the "projective verse" of Charles Olson are latter instances of the explorative approach to organic pulsatile rhythms. Once rhythm mutates, from a functional device, to an essential topic of art, once art itself, and not only the theory of art, begins to meditate on rhythm, we are actually invited to and involved into a critical exploration of time. Which calls to memory the words of Ezra Pound: "Rhythm is form cut into TIME, as a design is determined SPACE" (*Treatise* 235).

Muşina's theory of the explorative function of modern poetry, and implicitly of free verse, seems to equally resonate with the oscillation between fear and curiosity, evidence of individual vulnerability and impulse to contain uncertainty, estranged self and anthropomorphic Otherness, that constitute the mystical experience. From a hermeneutical (Jauß, "Der fragende") as well as from an analytic perspective (Tsur, "Linguistic"), the mystical experience is construed as a manner of gradually advancing in uncharted territories. But Muşina's vision is far more consonant with István Berszán's idea that rhythm, as an anthropological feature of literature, is linked to the explorative-tentative origin of knowledge acquisition (Berszán, *Land-rover*). This theory implies that literature is, originally, a form of knowledge, or at least of shaping cognitive dispositions, faculties, and strategies. The similarities between Muşina and Berszán become evident if we consider the fact that, even if he asserts an equal value to subjective (à l'aveugle) and objective (scien-

tomorphic) explorations, Muşina insists fore and foremost on the affinity between modern poetry and the advances of modern science:

Modern science is getting ever closer to the mode of existence, and sometimes even to the language of modern poetry. It is not by coincidence that major mathematicians and physicians either envy poetry for the “refinement of its immediate logic,” so George Hardy, or arrive to formulations that are pure poetry, so Hideki Yukawa, who asserts that: “The problem of infinity is a sickness that should be cured”. More than that, the features of modern poetry, the dominance of its explorative dimension, its new role in society (clearly different from the role and place of poetry in previous epochs) come very close to frontier science. The transfer of the model of the configuration of a new scientific paradigm to modern poetry (with due nuances, specifications, and revisions) is justified by the striking resemblance between the functioning of the two approaches, which usually appear as completely distinct. At the same time, let’s not leave aside the resemblance between the relationship of modern poetry to its audience, and the one of frontier science with those who benefit from its achievements: similarly to the manner in which nobody knows, for instance, who invented the computer, but everybody heard about IBM, almost nobody heard of W.C. Williams, very, very few would know something about beat poetry ..., but everybody heard about The Beatles (*Paradigma* [*The Paradigm*] 51).

The connection between literature, exploration and empirical research is also the backbone of István Berszán’s theory. We should greet as a remarkable breakthrough his idea that the most adequate simile in order to understand the basis of empirical research, as well as the central metaphor of poetic cognition is the manner in which we find our way through a forest at night. This analogy might radically change the manner in which we perceive nature poetry, at least since Romanticism. Romantic mental landscapes can be seen as virtual exercise grounds for a pointed sense of orientation exposing not only an elementary impulse of self-preservation, but also an original and supposedly pristine capacity for intellectual and moral distinctions. Charles Taylor insisted on the ineffable but inextricable link between spatial and moral orientation. Finding one’s balance, at the level of proprioceptive faculties, as well as the orientation in an unknown area, seem to be related to our capacity of discerning between right and wrong, in other words of finding the

“right” path through the arborescent consequences of real life situations (Taylor, *Sources* 25–52).

Music becomes the model for free verse precisely because it is the seminal example of cautious but determined progression that implies with necessity a minutely, gradually, and continuously altered repetition. The creed, epitomized in Pound’s imagist program, of the musical phrase as inspiration for poetic rhythm, in opposition to the cadence of the metronome, implies the aspiration of marrying repetition to exploration. Poetic modernity represents a revolution in cognitive sensibility precisely because it uncovers the explorative origin of rhythm, its connection with the archetypal experience of advancing in unknown territory. A process of mental mapping that presupposes the alternation of waves of self- and environment-oriented attention. The natural (in the sense of neural) basis for the oscillatory rhythm is the counterpoint between defensive and insurrectional reflexes, a tidal structure imposed by successive movements of advancing and recoiling. This perspective seems to support the idea of Henri Meschonnic, that modern poetry tends to revert to the original meaning of the word *rhythmos*, quite different from the one inherited by the Hellenistic epoch and transmitted to Medieval Christianity. Amittai Aviram resumes this discovery, actually borrowed by Meschonnic from the linguist Émile Beneviste: “Akin to the verb *rheo*, to flow, *rhythm* in its pre-Platonic sense denotes the shape (*schema*) of a moving object such as the water of a stream or the body of a dancer. It is in the words of Socrates that this form or shape of a moving body is required to follow “measure” and order – in other words, to be metrical – so that in Plato the term occupies the exact point where the ancient and modern senses of the word overlap. After Plato, apparently, rhythm has meant increasingly what it means today” (Aviram, “The Meaning” 162). The basic cognitive metaphor on which an entire tradition of understanding rhythm was premised is called into question by Meschonnic’s etymological revolution. A noted scholar of rhythm and race notices that “Meschonnic’s objection is ... to the “mythical” conception of rhythm as a sea-like entity that is fluid but fixed, contained, and bounded within the structure of the poem. The etymology of the verb suggests, however, that regularity and predictability are not inherent aspects of rhythm; rhythm is something that flows and is therefore freer, looser, and more irregular than the traditional sea-like notion it suggests” (Munro, *Different* 52).

Contemporary research on the psycho-cognitive nature and function of poetry, re-activating dormant Romantic tenets and experiments, hypothesizes deep levels of kinetic mind-body transgressions, and tries to expose how a sense of order emerges from multiple, interferential and irregular vacillations of the prospective attention span (Holland, *The Brain*; Deppman, *Trying to Think*; Wójcik-Leese, *Cognitive Poetic Readings*; Freeman, “Authorial Presence”). In a way, those who were reluctant to free-verse on the ground that it was not actually distinguishable from prose might have unconsciously exposed a deep nexus of semantic

implications. The modern notion of “prose”, devised in opposition with “verse,” derives from the old “Latin *prosa*, from feminine of *pro-sus*, *prosus*, straightforward, being in prose, contraction of *prover-sus*, past participle of *provertere*, to turn forward, from *pro*-forward + *vertere* to turn” (www.merriam-webster.com/dictionary/prose#h1). The prominent Romanian author and scholar Gheorghe Crăciun, himself a consummated transgressor of the conventional limits between prose and poetry, turned this etymological discovery into the cornerstone of his theory of literary experiment (“The Experiments”). So, it appears that a type of verse that enters the mental scapes generated by a movement of explorative advancing runs the major risk of being assimilated with what is commonly known as “prose” because it brazenly replaces the pulsatile, self-referential rhythm, traditionally connected in an imperative manner with “verse” and “poetry,” with a form of rhythmic advancement, of rhythmic “proversions”, of repeated spins, or turning-forwards. This interpretation echoes, most unexpectedly, Merleau-Ponty’s very personal redefinition of Hegelian dialectics, as “what we call by another name the phenomenon of expression, which gathers itself up and launches itself again through the mystery of rationality” (quoted in Wiskus, *The Rhythm* 149).

The spatially-explorative character of free verse is most obviously present in poems that deal also at their theme level with attention, advancement, and uncertainty, as for instance the poetry that explores the experience of the battle field. A compelling example of this kind of exploration that directly connects lyrical progression with basic survival is to be found in the Vietnam war poems of Yusef Komunyakaa (*Toys, Dien*). But this “operational theatre” poetry is, in a way, exposing the profound nature of free verse experiments. The connection between a sense of uncertainty *cum* vulnerability and the tentative rhythm of advancing in uncharted territory calls to mind Martha C. Nussbaum’s cognitive theory of emotions, and especially her assumption that “most of the time emotions link us to items that we regard as important for our well-being, but do not fully control. The emotion records that sense of vulnerability and imperfect control” (Nussbaum, *Upheavals* 43). Actually, it is worth quoting also Nussbaum’s vision of reason, conceived in a vibrant continuum with emotion: “Reason... moves, embraces, refuses; it can move rapidly or slowly, it can move directly or with hesitation” (44).

Free verse captures the balance between repetition and progression that determines the nature of explorative mental rhythms. Repetition offers the background and back-up for the leaps of understanding, i.e. for the inquisitive momentum introducing irregularities among the loops of predictability. T. S. Eliot captures the essence of this subtle balance of powers when he states that “it is this contrast between fixity and fluidity, this unperceived evasion of monotony, which is the very life of verse” (“Reflections” 185). The repetitive function of rhythm provides the impression of fixity, while its prospective component is responsible

for the fluidity of inquisitive attempts. Monotony is the substratum, or the safety net of the explorative-creative mental events that Istvan Berszán terms “acts of attention”. A similar intuition is sizable in G. S. Fraser’s consideration that “much that is taken as free verse, or as breaking the old rules, is merely, in fact, an intelligent use of the great flexibility of the old rules” (Fraser, *Meter* 72).

The cognitive metaphor of tentative spatial exploration, as congenial to the nature and functioning of free verse, has equally important consequences on conceptualizing the position of the poetry reader. This perspective is deemed essential, among others, by Steven Dobyns, who writes: “Consider two systems of poetry. In the first, the reader anticipates the rhythmic direction of the poem, finds his or her anticipation verified by the reading experience and feels a sense of gratification. In the second, the reader either can’t anticipate or anticipates incorrectly, while being constantly surprised with unexpected patterns and repetitions. The first system, generally speaking, is the system of traditionally metered verse. The second is the system of free verse. ... Free verse employs a prosody governed by the unexpected” (Dobyns, *Best Words* 53). Traditionally, the reader expected rhythm to function as a regulatory force, ensuring a discipline of the mind. Actually, the covertly- or overtly-didactic presumption that poetry should move within the confines of already processed and organized information is still with us in no negligible measure. It underlies, for instance, the majority of the science & literature approaches that only try to capture how the latter mirrors the former (Clarke and Rossini, *Routledge*). But the oscillatory progression of free verse has to do with a completely different perspective of the author-reader cognitive covenant. The explorative rhythm of free verse is supposed to recreate the original condition of experience and, more precisely, of experiencing, to recover the pristine state of acquiring useful, survival-relevant knowledge. The perspective of the reader also discloses rhythm as an agent, or integrant part, or emanation, or epiphenomenon, or representation of reason. The rhythmic perception, as an integral part of poetic understanding, directly depends on the terms in which reason itself is understood. If equated with the logos, it implies a regime of self-enclosed connectivity. Therefore, the regularities of canonical blank and rhymed verse were associated with the classical belief in a general and intelligible order of the universe. Free verse, in its turn, seems to illustrate a different understanding of reason, one that presupposes the dissolution of the correspondence between human intellect and organizing principles of the universe. As an instrument of continuous advancement into unknown and uncharted territories, reason becomes tentative, experimental. Free verse functions not as the vehicle of a given epistemological persuasion, but is part and parcel of a distinct cognitive sensitivity, and the most graphic rhythmic expression of an explorative, cautious connectivity.

Advancement, as a metaphor for empirical (re)search can also be seen as a manner of distilling, or styling, the multiple foci of variation of a given environment (mental territory) into a manageable set of rhyth-

mic repertoires. At the same time, the oscillatory movement of spatial prospection is transferred within the subject: the outwardly oriented rhythm of exploration is mingled with, and therefore not clearly discernible from the oscillatory rhythms of self-doubt and self-interrogation. This calls to mind the manner in which moral philosophers acknowledge the emotional sphere as a field of inner debate and conflict: "Once we understand that the crucial cognitions are evaluative, we have no difficulty seeing the conflict as a debate about what is really the case in the world. In this rhythm of embrace and denial, this uneven intermittence of vision, we have a story of reason's urgent struggles with itself concerning nothing less than how to imagine life" (Nussbaum, *Upheavals* 96).

I will not end this essay without pointing to an important regard in which my approach complements Berszán's vision of rhythm theory as a fertile interface between literary scholarship and hard science. Berszán's proposition of space-organizing and even space-creating rhythms is meant to bring together literary studies with physics (quantum and string theory), and with the fascinating holistics of networks science. The perspective I have drawn would rather point to the elective affinities between, on one hand, literary and philosophical hermeneutics, and on the other hand, empirical research on the interaction between endogenous and exogenous factors in the configuration of circadian rhythms. The rhythmic complexities generated but also exposed by the emergence of free-verse resonate with the conclusion of chronobiologists that "the circadian system actively synchronizes the temporal sequence of biological functions with the environment. The oscillatory behavior of the system ensures that entrainment is not passive or driven and therefore allows for great plasticity and adaptive potential" (Roenneberg, Daan and Merrow, "The Art" 183). The adaptive entrainment to which the above quotation alludes is further defined, in an even more inspiring and humanities-relevant manner, as "synchronization with many degrees of freedom" (188). Expanding on these affinities, I would propose that, taking into account the perspective of chronobiology (Roenneberg and Merrow, "What watch") and biomusicology (Hickok, Farahbod and Saberi, "Rhythm"), oscillatory rhythms such as those captured by free verse are broadly associable with entrainment indexes that point to the adaptation of inner physiological and behavioral rhythms to oscillatory environment stimuli. This idea is supported, for instance, by Zora Neale Hurston, who in her essay *Characteristics of Negro Expression* (1934) vividly points to the African-American musical tradition as the origin of free verse: "The presence of rhythm and lack of symmetry are paradoxical, but there they are. Both are present to a marked degree. There is always rhythm, but it is the rhythm of segments. Each unit has a rhythm of its own, but when the whole is assembled it is lacking in symmetry. But easily workable to a Negro who is accustomed to the break in going from one part to another, so that he adjusts himself to the new tempo" (84; on the subject of jazz and free verse, see also Yaffe, *Fascinating*).

I would also add a note to Berszán's generous and comprehensive approach of the science vs. arts and humanities divide. Experimental science is defined by procedures of observing, registering, testing, and protocols of forming and validating hypotheses. But before all this quantifying apparatus kicks in, there is the vibrant connection to its environment of a cognitive attention subjected both to a regressive self-consciousness of vulnerability, and to a genuinely prospective sense of opportunity. This being basically the same dual starting block used by symbolic-expressive explorations of the world. The repeated attempt to recover this original common ground, or condition, of exploration and expression is one of the major tasks of modern poetry. This does not imply the project of a totalizing gnosis meant to merge all walks of cognition, but the recurrent, to wit rhythmic remembrance of a common origin, or at least congenial disposition. Such an anamnesis is also socially relevant, since cognitive sectarianism should not be underestimated as a dissolving force of cultural commonality.

Of course, all the above considerations do not as yet to their actual research operationalization. It can be justifiably hold against them that they are too speculative and abstract, i.e. without a precise and immediate analytic and methodological avail. Nevertheless, I would balance such remonstrance against the confession of one of the seminal thinkers on the topic of rhythm, none other than Henri Lefebvre, the creator of the notion and discipline of rhythmanalysis, that, in his groundbreaking explorations, he started with "concepts" and "definite categories" and that he perceived as fully legitimate the manner in which "instead of going from concrete to abstract, one starts with full consciousness of the abstract in order to arrive at the concrete" (Lefebvre, *Rhythmanalysis* 5).

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