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**Cosmic Impacts and Quantum Uncertainties: *Altazor*
and the Fall “From” Reference**

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Vicente Huidobro’s long poem *Altazor* (1931) is an avant-garde exploration of language that narrates a series of linguistic, critical, allegorical, and gravitational “falls” in such a way as to map out the trajectory of the falling protagonist’s “viaje en paracaídas” (voyage in parachute).¹ We can locate or situate the impact of a referentially and discursively significant “event” in the poem’s theoretical configurations of falling and gravitation, in the work of this celestial poet indelibly linked to cosmological spaces and the linguistic fluctuations that give them shape. In light of *Altazor*’s extra-terrestrial deconstructions, numerous critical studies have described the poem’s reconfiguration of a fall “from” the referentiality of the linguistic sign via the material fall “of” language itself. To address this logic from the space of cosmology itself, we might examine *Altazor*’s haunting referential structures in order to read how its multiple, disarticulated chains of signification register a celestial and quantum event that is unpredictable and unanticipated, manifest throughout Huidobro’s poem and particularly evident in the radical textuality that comes in the poem’s famous final “gasps.”

This essay, then, reconsiders the impact of a linguistic event in *Altazor*’s gravitational field by first reconsidering myriad critical approaches to the issue of the poem’s “illegible,” ambiguous conclusion via an examination of the scientific imaginary that the poem shares with important discoveries in theoretical and experimental physics in the first few decades of the twentieth century. By engaging the historical context of the quantum/relativistic paradigm shift in physics that was contemporary to the poem’s composition, I will explore the ways in which *Altazor* in and of itself marks the historical and discursive passage between Newtonian and quantum cosmovisions. *Altazor*’s meaning-making activities, read with respect to quantum and cosmological concerns, show how Huidobro’s long poem traces out the falling motion of a linguistic and cosmic event that, nevertheless, is horizonless and radically heterogeneous in nature—a facet of the poem that is indicative of the kinds of quantum fluctuations whose “path” can not be accurately predicted or described with total certainty or mastery. The critical

journey upon which this essay embarks, then, does not necessarily mirror the “viaje en paracaídas” to which *Altazor*’s title alludes. Rather, I’ve tried to “measure” and “observe” the heterogeneous, quantum textualities that structure and at the same time destabilize Huidobro’s poetic/cosmological explorations—moving from reflections on the explicit linguistic analysis that predominates in readings of the poem, to the cosmic structures read through the text’s multifarious falling motion, to its radical, referential aberrations, to the impact of a traumatic event in the Latin American and avant-garde poetic traditions.

The question of language and its progressive “breakdown” in *Altazor* is not a new line of inquiry—it is an issue explored in depth by critics such as Guillermo Sucre, Saúl Yurkievich, Octavio Paz, George Yúdice, Cedomil Goic, and René de Costa, in particular. And reading the trajectory of *Altazor*’s fall “in” language in terms of a dialectic of triumph and/or failure is, in fact, an endeavor well accounted for in the lengthy bibliography on Huidobro’s long poem. Sucre, for example, does not quite consider *Altazor* to be a failed poem; he sees it as speaking from the very presence of failure in order to demonstrate the impossibility of aspiring to the absolute:

Altazor no es un poema fracasado, sino, lo que es muy distinto, el poema del fracaso. Insisto: no *sobre* sino *del* fracaso; no un comentario alrededor del fracaso, sino su presencia misma. Uno de sus valores (y de sus riesgos, por supuesto) reside en este hecho: haber ilustrado con su escritura misma la desmesura y la imposibilidad de una aspiración de absoluto. (107)

(*Altazor* is not a failed poem, rather, it is the poem of failure, which is quite different. I insist: not *about* rather *of* failure; not a commentary speculating about failure, but rather failure’s very presence. One of its strong points (and its risks, of course) lies in this fact: having illustrated via its own writing the incongruity and the impossibility of aspiring to the absolute.)²

In a somewhat similar vein, Yúdice suggests that the new language arising from the ashes at the end of the seventh canto constitutes the triumph of the polyvalent “fallen” word in its simultaneous death and resurrection of language:

El final de *Altazor*, no carece de sentido; tampoco tiene solamente un sentido unívoco. En este poema se pretende resumir y superar la historia de la poesía tal como la mistifica Huidobro. De ahí las citas de código de la trascendencia vacua, del código de la ruptura y de los muchos códigos intertextuales. Al final del poema se llega al punto crítico de la creación poética; toda poesía anterior a *Altazor* es una aproximación asintótica a la palabra absoluta, pero este nunca llegar al absoluto es, en efecto, un fracaso. Huidobro transforma este fracaso en un triunfo; la palabra altazoriana es a la vez muerte y resurrección del lenguaje. (211)

(*Altazor*'s end is not without meaning; nor does it have a single, univocal meaning. This poem aims to summarize and overcome the history of poetry via Huidobro's mystification. Hence the citations of codes of empty transcendence, codes of rupture, and many intertextual codes. The end of the poem arrives at the critical point of poetic creation; all poetry prior to *Altazor* is an asymptotic approach to the absolute word, but this never arriving at the absolute is, in effect, a failure. Huidobro transforms this failure into a triumph; the Altazorian word is simultaneously the death and resurrection of language.)

Paz also considers *Altazor* to be simultaneously failure and triumph, incarnate in the moment in which "el poeta despoja paulatinamente al lenguaje de su carga de significaciones y en los últimos cantos las palabras aspiran no a significar sino a ser: sílabas que son sonajas que son semillas. [. . .] El viaje por el *unipacio* y el *espaverso* de Huidobro es la historia de la ascensión del sentido al ser [. . .] [que] termina en triunfo" (12) (the poet slowly removes the charge of meanings from language and in the final cantos the words do not strive to signify, but rather to be: syllables that are rattles that are seeds. [. . .] The voyage through Huidobro's *unimos* and the *cosverse* is the history of the ascension from meaning to being [. . .] [that] ends in triumph).

Rather than throw another straw on this particular (proverbial) camel haunting the larger scope of Huidobro criticism, I would like to think through the myriad critical perspectives on the disarticulated, syllabic utterances at the "conclusion" of *Altazor*'s Canto VII in terms of the way in which the poem "ends up," thereby treating its final enunciations in terms of their cosmic and traumatic eventhood. From a critical perspective, we might say that there is a strong impulse to orient *Altazor*'s poetic experimentation with respect to the temporal configurations of high *vanguardismo*, given Huidobro's dating of its composition between 1919 and 1931. Literary historiography, in a sense, shows the way in which the radicality of *Altazor*'s poetic project closes off the so-called period of radical experimentation in the Latin American poetic avant-gardes (Quiroga 1996: 314), thus marking the impact of a heterogeneous poetic event that was clearly felt throughout the Latin American literary canon. But this historiographical reflection, in turn, reveals how this "neat" (meta)textual gesture is structured, in part, as an allegory of *Altazor*'s voyage—especially given the way in which numerous textual analyses align *Altazor*'s fall in language with the progressive destruction of the Spanish linguistic system, thereby teleologically orienting "his" rapid descent as a function of the progression from the Preface to Canto VII.³ I tend to be a bit suspicious of some of the metaphysical terminology deployed by some Huidobro critics in the anticipation of what I read as the radical coming of something wholly "other" in language. To take just a few examples of what I mean by "metaphysical" approximations (that nonetheless constitute valuable

contributions to studies on Huidobro's writing), Paz suggests that "el lenguaje del canto final de *Altazor* ha alcanzado la dignidad suprema: la del pleno ser" (13) (the language of *Altazor*'s final canto has achieved the highest dignity: that of being itself); Yúdice describes the basic myth of *Altazor* in terms of the miracle of "ese lenguaje antipoético y autorreferencial del último canto, lenguaje nuevo nacido de las cenizas del lenguaje destruido. Así el contexto de la literatura de ruptura no deja de tener significancia para la lectura de la obra; en efecto, *Altazor* pretende resumir toda esa literatura y superarla llevando el proceso de ruptura a su máxima conclusión" (184) (that antipoetic and autoreferential language of the final canto, new language born from the ashes of language destroyed. Thus the context of literature of rupture does not stop being significant for readings of the work; in effect, *Altazor* aims to summarize and overcome that literature by bringing the procedure of rupture to its ultimate conclusion).

An "in kind" approach to *Altazor*'s radical textual spaces, on the other hand, might be elaborated through a discussion of the horizon-less nature of that which *comes*, an event whose horizon of expectation cannot be anticipated. Jacques Derrida, in his insightful discussion of the non-temporal "futurity" of that which is "to-come," suggests that:

Whenever a *telos* or teleology comes to orient, order, and make possible a historicity, it annuls that historicity by the same token and neutralizes the unforeseeable and incalculable irruption, the singular and exceptional alterity of *what* [*ce qui*] comes, or indeed of *who* [*qui*] comes, that without which, or the one without whom, nothing happens or arrives. (*Rogues* 128)

Despite the teleological orientation of readings of *Altazor* that inscribe the poem's falling motion in a ruin-or utopian-seeking narrative, I think that the cosmological poetics of *Altazor* perhaps offer a different scenario that would account for the haunting linguistic and quantum uncertainties at play in Huidobro's poem. Specifically, I am interested in the multifarious, referentially aberrant "falls"—linguistic, allegorical, and gravitational—that situate *Altazor* at the limit of the move from classical physics to our current quantum worldview.

I would like to focus, for a moment, on this trope of falling and its relationship with the eventhood of *Altazor*'s radical poetic experimentation. The falling motion enacted in *Altazor* is thematically and discursively initiated in the Preface, in which the protagonist takes hold of his parachute, falling "de sueño en sueño por los espacios de la muerte" (55) (from dream to dream through the spaces of death). The indissoluble link between death and falling, of course, has biblical resonances, but also plays into Nietzschean-Zarathrustran analogies, as well as Heidegger's fundamental ontology of *Dasein*'s Being-towards-death—readings of *Altazor* that have

been well-established in the bibliography on Huidobro.⁴ But following a ludic encounter with the Creator shortly after embarking on his journey, Altazor hears how the Creator “[creó] la lengua de la boca que los hombres desviaron de su rol, haciéndola aprender a hablar . . . a ella, ella, la bella nadadora, desviada para siempre de su rol acuático y puramente acariciador” (56) (“created the tongue of the mouth which man diverted from its role to make it learn to speak . . . to her, to her, the beautiful swimmer, forever diverted from her aquatic and purely sensual role”). This description of humankind’s deviation from what the oceanic fluidity of language was supposedly “intended” to do is interesting, in and of itself, from several critical standpoints—and thus fits snugly with critical approaches that discuss the demythification of language via multiple linguistic ruptures that aspire to bring about the absolute correspondence between the word and the thing-in-itself, signifier and signified, etc. But I think it is noteworthy that this question of humankind’s duplicitous relationship with language *immediately* sets Altazor’s fall into motion, insofar as the Creator states:

creé la lengua de la boca que los hombres desviaron de su rol, haciéndola aprender a hablar . . . a ella, ella, la bella nadadora, desviada para siempre de su rol acuático y puramente acariciador.
Mi paracaídas empezó a caer vertiginosamente. Tal es la fuerza de atracción de la muerte y del sepulcro abierto. (56)

(I created the tongue of the mouth which man diverted from its role to make it learn to speak . . . to her, to her, the beautiful swimmer, forever diverted from her aquatic and purely sensual role.
My parachute began to dizzyingly drop. Such is the force of the attraction of death, of the open grave.)

This “vertiginous” fall highlights the strong gravitational forces that structure Altazor’s cosmic spaces, and anticipates the significant, hierarchical-evolutionary classification towards the end of the “Prefacio:”

Hombre, he ahí tu paracaídas maravilloso como el vértigo.
Poeta, he ahí tu paracaídas, maravilloso como el imán del abismo.
Mago, he ahí tu paracaídas que una palabra tuya puede convertir en un parasubidas maravilloso como el relámpago que quisiera cegar al creador. (60)

(Here’s your parachute, Man, wonderful as vertigo.
Here’s your parachute, Poet, wonderful as the charm of the chasm.
Here’s your parachute, Magician, which one word of yours can transform into a parashoot, wonderful as the lightning bolt that tries to blind the creator.)

Man's parachute, described here as "wonderful as vertigo" (11), highlights the attraction of masses via gravitation, while the attractive, magnetized potential of the abyss pulling on the Poet's parachute further develops the physical properties of Altazor's extra-planetary exploration. However, it is through the Magician's apparently *creacionista* abilities that we might approach the problematic relationship between the empirical reality of falling bodies and the linguistic system that purports to describe them—an issue that is clearly one of *Altazor's* central critical preoccupations.⁵ The Magician's verbal-antigravity operations can transform parachute to "parashoot" (11) in such a way as to simultaneously reverse the gravitational pull of Earth or of other celestial bodies, and also the tropological trajectory of his fall "in" or "through" language. In this way, Altazor, significantly doubled in Canto IV as "Vicente antipoeta y mago" (95) (Vicente antipoet and magician) will launch his falling body into the depths of space in an irregular trajectory defying the fundamentals of gravitational and linguistic forces.

One possible approach to the commingling of linguistic and cosmological uncertainty in *Altazor* is through a series of theoretical reflections—contemporary to the poem's composition—on the question of gravity. In terms of the dissemination of important scientific discoveries related to gravitation and relativity in Latin America in the first part of the twentieth century, Albert Einstein, in his 1925 visit to Argentina, Uruguay and Brazil, suggested in his journals that while he was consistently underwhelmed by the level of scientific engagement he found, in Argentina he at least encountered a community of physicists receptive to his findings (Glick 878–886).⁶ And in Chile, a 1928 visit by French physicist Paul Langevin sparked collective curiosity about current work in quantum physics and relativity, and was accompanied by numerous conferences by Chilean Professors Ramón Salas Edwards and Pablo Krassa on topics such as quantum theory, relativity, and experimental physics.⁷ And while Huidobro himself traveled extensively between Chile, Argentina, Spain, France, and the United States between 1916 and 1931 (settling at different times in Madrid, Paris, Barcelona, and New York, among other cities),⁸ a scientific-philological reading of *Altazor* and relativity yields some interesting results. In the first Canto, the falling poet describes the way in which his loneliness is affected by "el paso de las estrellas que se alejan" (63) (the footsteps of stars slipping away), which thematically evokes Altazor's growing solitude in the retreating firmament, but also suggests cognizance of the expanding universe. The notion of cosmic expansion and inflation—based on a series of solutions to Einstein's field equations of general relativity (1915), first proved mathematically by Alexander Friedman (1922), and subsequently confirmed experimentally by Edwin Hubble (1929)—relies on the flexibility of space and time to suggest that the

fabric of space itself is in fact stretching (Greene 229–33). This radical change to our cosmovision is significant, since it uses general relativity to explain the simultaneous expansion of time and space (as space-time) in such a way as to highlight the lack of a “special or unique location that is *the* center from which the outward motion is expanding” (Greene 232). Along these lines, we might think through Canto IV’s urgent, repeated insistence on there being “no time to lose” (No hay tiempo que perder) as situating *Altazor*’s fall in the “midst” of the paradigm shift proper to relativity’s coming into its own by the 1920s. It thus bears witness to Einstein’s notion of time dilation for objects in relative motion (moving at different velocities with respect to each other), thereby showing how since there is in fact “no time to lose,” we must “play outside of time” (Jugamos fuera del tiempo) (118), that is, “outside” of time since time in and of itself isn’t “in time” or in-sync in the flux of a world post-relativity. In essence, then, *Altazor* engages the question of relativity by highlighting the impossibility of an absolute notion of time and space shared by all observers, a scenario in which there can be no unconditional measure of timeliness on a universal scale.

Another important component of this “scientific revolution,” to use Thomas Kuhn’s influential terminology, can be found in further developments and debates in theoretical and experimental physics in the early part of the twentieth century.⁹ It is important to note that these discoveries did not merely initiate a shift in thinking in a scientific-academic context; rather, as Alicia Rivero suggests, “Einstein’s relativity and the Copenhagen interpretation of quantum mechanics presented a new worldview, which reconceptualized time, space and other aspects of classical physics, while metamorphosing the art, literature and philosophy of the twentieth century” (137).¹⁰ In a more dramatic fashion, founding father of abstract art Wassily Kandinsky claimed that in the context of quantum physics’ radical overthrow of the classical universe, “the collapse of the atom model was equivalent, in my soul, to the collapse of the whole world. Suddenly the thickest walls fell. I would not have been amazed if a stone appeared before my eye in the air, melted, and became invisible” (Randall 117). Kandinsky’s remarks are a bit hyperbolic, but there were indeed some “spooky” findings released during this time. In particular, the widely accepted Copenhagen interpretation of quantum mechanics, based largely on Werner Heisenberg’s uncertainty principle (stating that there are limits to the accuracy with which a particle’s position and momentum may be measured) and Niels Bohr’s work on the wave-particle duality of light, profoundly called into question the certainty purportedly guaranteeing the classical worldview.

In the Newtonian universe—whose laws of motion still adequately describe objects not extremely massive nor moving very fast—one could

account for the trajectory of Altazor's fall, for example, by possessing sufficient information about all involved particles and heavenly bodies. In the context of this paradigm shift, one of the issues at play in the system of particles that interact in *Altazor's* celestial fluctuations is a related question of uncertainty at the molecular level, described by the so-called "butterfly effect" in chaos theory.¹¹ This is a perspective that examines the supposition that the initial conditions of a system (i.e. a change in wind patterns caused by a butterfly flapping its wings) can greatly influence subsequent outcomes (thereby causing a tornado halfway across the globe). Brian Greene highlights a similar meteorological analogy in the Newtonian worldview, since according to the classical universe, "if we knew in complete detail the state of the environment (the positions and velocities of every one of its particulate ingredients), we would be able to predict (given sufficient calculational prowess) with certainty whether it will rain at 4:07 p.m. tomorrow" (91). I think that this theoretical reflection has something in common with specific questions of correspondence posed by *Altazor* in Canto IV, in terms of the poem's exploration of the epistemological, poetic, and probabilistic limits of certainty in a quantum world. Huidobro writes:

Qué hace la golondrina que vi esta mañana
 ¿Firmando cartas en el vacío?
 Cuando muevo el pie izquierdo
 ¿Qué hace con su pie el gran mandarín chino?
 Cuando enciendo un cigarro
 ¿Qué hacen los otros cigarros que vienen en el barco?
 ¿En dónde está la planta del fuego futuro?
 Y si yo levanto los ojos ahora mismo
 ¿Qué hace con sus ojos el explorador de pie en el polo?
 Yo estoy aquí
 ¿En dónde están los otros?
 Eco de gesto en gesto
 Cadena electrizada o sin correspondencias
 Interrumpido el ritmo solitario
 ¿Quiénes se están muriendo y quiénes nacen
 Mientras mi pluma corre en el papel? (101)

(What's that swallow doing the one I saw this morning
 Signing letters in space?
 When I move my left foot
 What does the great Chinese mandarin do with his foot?
 When I light a cigarette
 What happens to the other cigarettes that came on the boat?
 Where is the leaf of the future fire?
 And if I raise my eyes just now
 What's the explorer on foot to the pole doing with his eyes?
 I am here

Where are the others?
 Act echoes act
 A chain electrified or with no connections
 A solitary rhythm interrupted
 Who's dying and who's been born
 While my pen runs across the paper?)

This somewhat tragic-comic (or at least idiosyncratic) examination of cause and effect interrogates the interconnected certainty of the classical world, but at the same time it interchanges the linked, “cadena electrizada” (chain electrified) for a world “sin correspondencias” (with no connections). This move very much shifts attention to the way in which this solitary rhythm is interrupted, rather than is temporally constituted as rhythm in and of itself,¹² in such a way as to parody poems like the famous “Correspondances” sonnet by French poet Charles Baudelaire, as well as the larger tropological engagement with harmony and correspondences in Latin American *modernista* poets such as José Martí and, particularly, Rubén Darío. So not only does this move engage a worldview in which the position and momentum of a given particle can only be expressed in terms of a probability wave—and not a concrete set of coordinates—but also the kind of quantum “entanglement” so despised by Einstein.¹³ The German physicist continuously protested against “spooky-action-at-a-distance” (Kaku 175) linking particles at great distances purported to “exist” by quantum physics. To say that two particles are “entangled” describes a phenomenon by way of which initially “identical” particles, when separated to great distances, inevitably *still* show the same essential properties and behaviors when one is acted upon—despite the “ultimate” limit of the speed of light for the transmission of information. This counter-intuitive principle very much shapes the kinds of ironic correspondences explored in this fourth Canto, between these echoed acts that nevertheless are simultaneously disconnected from one another.

Altazor's multifarious fall, then, marks the lacunae that separate Newtonian and quantum cosmovisions. The post-classical underpinnings of *Altazor* highlight the “spooky” cosmological and mathematical structures at play in its celestial space as unanticipated and uncertain with respect to the falling motion the text enacts in its seven-canto journey. My insistence on that which is “unanticipated” or “horizon-less” is a product of my conviction that the kind of reading that purports to account for *Altazor's* eventhood by constructing a teleological edifice upon which to ground itself is not taking to task the quantum and radically singular verbal fluctuations that *come* at the end of the poem. Inscribing Altazor's fall in the context of the uncertainties of a “quantum” poetics, however, treats the radical nature of the event in terms of its own unanticipated coming, therefore thinking through the fundamentally unpredictable falling motion without engaging a

necessarily “classical” or teleological positionality. Along these lines, I think that a “Newtonian” reading of *Altazor* would map onto the teleological undercurrents that would efface the singularity of that which is *to-come*, that which *comes* in the disarticulated syllables at the poem’s “conclusion.” My “quantized” assessment of the trajectory of *Altazor*’s fall, on the other hand, thus marks where the poem “ends up” in its atomic, cosmological and linguistic uncertainty.

A particular “measurement” of *Altazor*’s meta-linguistic, discursive, and cosmological impact can be calculated in the verbal and chemical decomposition registering the event of a meteorite’s celestial trajectory in Canto IV:

Aquí yace Altazor azor fulminado por la altura
 Aquí yace Vicente antipoeta y mago
 Ciego sería el que llorara
 Ciego como el cometa que va con su bastón
 Y su neblina de ánimas que lo siguen
 Obediente al instinto de sus sentidos
 Sin hacer caso de los meteoros que apedrean desde lejos
 Y viven en colonias según la temporada
 El meteoro insolente cruza por el cielo
 El meteplata el metecobre
 El metepiedras en el infinito
 Meteópalos en la Mirada. (108–09)

(Here lies Altazor hawk exploded by the altitude
 Here lies Vicente antipoet and magician
 He who weeps will be blind
 Blind as the comet that travels with its staff
 And its mist of souls that follow it
 Instinctively obedient to its wishes
 Never minding the meteoroids that pelt from afar
 And live in colonies according to the seasons
 The insolent meteoroid crosses the sky
 The meteojoid the meteotoid
 The meteovoids in the infinite
 The meteonoid in a glance.)

This cosmological series initiates linguistic deconstructions, following the progressive fragmentation of a series of proper names—Marcelo into “mar” and “cielo” (sea and sky), Clarisa into “clara” and “risa” (clear and laugh), as well as Alejandro into “antro” and “alejado” (95) (alas under all), among others—and also reveals the origin of *Altazor*’s name as deriving from the celestial and the avian, “altura” (height) and “azor” (hawk). It is interesting, however, that while the breakdown of names initiates aural echoes and visual stutters through a kind of paronomastic operation, the only name not

deconstructed is “Vicente,” obviously invoking Huidobro himself, the anti-poet whose *creacionista* verse leaves no trace or echo. By aligning his own poetic prowess with the magician of the Preface, we can see how the anti-poetic gaze tries to resist the kind of deconstructive operations to which the other proper names are subject. Nevertheless, the progression from the proper to the common in this passage—from “Marcelo” to “meteoro,” for example—only serves to dramatize the way in which the proper name in and of itself must necessarily function with respect to the same set of differentials that structures and at the same time destabilizes language. As Geoffrey Bennington suggests in the context of Jacques Derrida’s work:

[The proper name] is the keystone of logocentrism [. . .] What is called by the generic common noun “proper name” must function, it too, in a system of differences: this or that proper name rather than another designates this or that individual rather than another and thus is marked by the trace of these others, in a classification (GL, 86b, 137a), if only a two-term classification [. . .] For there to be a truly proper name, there would have to be only one proper name, which would then not even be a name, but pure appellation of the pure other, absolute vocative (cf. EO, 107–08; GR, 110–11; WD, 105), which would not even call, for calling implies distance and *différance*, but would be proffered in the presence of the other, who would in that case not even be other. (105)

This (im)proper act of naming shows the name’s parallel descent with celestial objects such as comets, stars, and, perhaps, most significantly, meteors. Insofar as *Altazor*’s ludic language games permit the material treatment of “meteoro” (meteor) as if it were a combination of “mete” (from the verb “meter,” “to insert”) and “oro” (gold), what is “produced” here are chemical-verbal reactions that add silver (plata), copper (cobre), more generic rocks (piedras) and, finally, opals (ópalos).¹⁴ René de Costa reads this transposition in terms of its comic effect—“but effects are not causes, and here humor functions to point up the polyvalent nature of language, its potential for generating meanings according to context” (1984: 156)—but in fact its *cosmic* effect shows the way in which the linguistic and the cosmological do not converge according to the physical properties of nature. These “meteoro [. . .] / meteplata [. . .] / metecobre [. . .] / metepiedras [. . .] / meteópalos” are, in and of themselves, falling, so to speak, but not necessarily “towards” Earth as a function of the gravitational attraction between physical bodies, but rather *in* language.

From a referential standpoint, this “meteoro” example brings out a suggestive series of convergences between *Altazor*’s quantum/cosmological spookiness and the question of the poem’s constituent “literariness.”¹⁵ The paradigm shift that marked the move from what could be called “pre-quantum” writing to the kinds of cosmological poetics at play in *Altazor* reflects the way in which language, in and of itself, always already stages

these kinds of uncertainties. To take a particularly suggestive treatment of linguistic uncertainty from contemporary literary theory, Paul de Man describes the tense relationship between the empirical reality of the physical world and the material nature of language by highlighting how

literature is fiction not because it somehow refuses to acknowledge “reality,” but because it is not *a priori* certain that language functions according to principles which are those, or which are *like* those, of the phenomenal world. It is therefore not *a priori* certain that literature is a reliable source of information about anything but its own language. (11)

De Man goes on to emphasize the dangers in confusing “the materiality of the signifier with the materiality of what it signifies,” since “no one in his right mind will try to grow grapes by the luminosity of the word ‘day’” (11). De Man’s differentiation between the empirical reality of the physical world and the material nature of language is, of course, humorously phrased, but is nevertheless indicative of the way in which language’s “measurement” of the empirical world is necessarily imprecise. In a way, the multiple “falls” that (metaphorically) encompass language’s own interstices and slippages thus can be brought to converge upon the curious links between the quantum and the linguistic in *Altazor*. This is not to suggest that there was ever a moment of perfect, Edenic correspondence between the word and the thing-in-itself—which is an allegorical “fall” that has been read into *Altazor*’s potential search for pure language. Rather, I think that a suggestive approach to the multifarious nature of “falling” present in *Altazor*’s quantum explorations can be found in a close interrogation of the traumatic impact of multiple linguistic and gravitational events in Huidobro’s poem.

In an essay on tropes of falling in Paul de Man’s critical writings, Cathy Caruth offers a useful way to think through the way in which the relationship between phenomena and language in the Newtonian universe in and of itself became problematic—a viewpoint that, as we have seen, would engender further crises of signification in the wake of relativity and quantum mechanics. Caruth describes how de Man’s reading of Heinrich von Kliest’s “antigravitational puppets” in the “Über das Marionettentheater” brings out a crucial disjunction between the referential properties of language and the phenomenal materiality of Newton’s mathematical representation of the law of gravity: “with the introduction of gravitation, the only thing that was adequate to the world was, paradoxically, that which didn’t refer (mathematics); and what did refer, language, could no longer describe the world. In a world of falling, reference could not adequately describe the world” (Caruth 76). Kliest’s puppets dance in such a way as to elude the problem of referentiality “in a formal, quantified system that is as predictable, and ultimately nonspecific—or nonreferential—as a mathematics” (81). Where Caruth reads de Man reading in terms of the

performative force of language's manifestation as materiality, she observes that "philosophy must, and yet cannot, fully integrate a dimension of language that not only shows, or represents, but acts [. . .] It is paradoxically in this deathlike break, or resistance to phenomenal knowledge, that the system will encounter the resistance, de Man suggests, of reference" (87). The breaks and "discontinuities" in reference, in fact, permit the engendering of meaning as "force disarticulates the system as it attempts to distinguish and unify empirical and conceptual discourse, that is, to know itself as independent of empirical referents" (Caruth 88). These falls, inadequately represented linguistically, show how theory and reading are therefore the falling motion *itself*, propagated by this force that materializes the resistance to reference.

The discontinuity between equations that account for the motion of falling objects and the linguistic elements that describe them shows the allegorical incongruity that "regulates" the way in which language functions. But as early-twentieth-century discoveries in quantum theory can attest—not to mention current engagement by such varied topics as superstring theory, M-theory, loop quantum gravity, twistor theory, etc.—the attractive force of gravity described by Newton does not quite account for the kinds of things that happen to bodies in motion. The sheer discursive weight of discoveries like Einstein's theory of relativity, Heisenberg's uncertainty principle, and light's wave-particle duality, among others, speak to a paradigm shift from the classical universe to the quantum/post-relativity worldview, that, as we have seen, is registered in its eventhood in *Altazor's* radical poetic textuality. Part and parcel of *Altazor's* traumatic event—whose impact resounded rather noisily in the Latin American poetic canon—is the (in)famous coming of Canto VII's ultimate, disarticulated syllables, in which *Altazor* registers its "final" falls and fluctuations, its gasps and its phoenix-like resurrectory throes (if we are to follow Paz, Yúdice, et al). In light of our quantum-cosmological reading, we might (re)consider *how* the poem "ends up" in its non-referential utterances—and not necessarily *what* it "means" or what is "concluding" here (in the etymological sense of "shutting," "closing," or "confining") (Conclude):

Semperiva
 ivarisa tarirá
 Campanudio lalalí
 Auriciente auronida
 Lalalí
 io ia
 i i i o
 Ai a i a i i i i o ia. (138)
 (Livfrever
 Lefdalafda dadeedah

Campellationed lalee
 Auricental centaurooral
 Lalalee
 Eeoh eeah
 ee ee ee oh
 Ahee ah ee ahee ah ee ee ee oh eeah. [151])

Rather than closing off signification through a hermeneutic deciphering of word-fragments in this passage—which would bring out varied, golden textualities (“aur-”), laughter (“-risa”), and eternity (“semper”), to name just three—we can say that the visual layout of these verses closely resembles prosody in Spanish, and at the same time “ends” with a chain of vowels that approximates some sort of voiced, guttural utterance. But in the context of *Altazor*’s quantum uncertainties, these final lines represent a “sample” observation of the poem’s quantum fluctuations—that is, a selection among possible combinations of linguistic elements (letters, accented vowels, and spaces, unfolded in a particular visual arrangement on the page) that mark changes in “energy” whose probability can be calculated with respect to Heisenberg’s uncertainty principle.¹⁶ These “ends” in and of themselves are indicative of the kinds of boundaries and limits that destabilize *Altazor*’s discursive frontiers, insofar as it is a poem that, paradoxically, at one point professes to “measure the infinite step by step” (79) and see “Beyond the last horizon” (81), thus calling into question the limit-experience of the frontier itself. These borders are only borders, so to speak, if in fact they are always already potentially transgressed with no horizon of expectation¹⁷—hence the quantum “spookiness” of *Altazor*’s heterogeneous textual/cosmological poetics, and its horizon-less radical coming in the “terminal” canto. Divested of a metaphysics of presence that would negate the radicality of this non-communicative linguistic event, the quantum measurement of *Altazor*’s textual space thus hints at the traumatic impact of this “ending,” this non-referential moment—textually, (meta)critically, as well as in the larger space of the global avant-gardes. And, ultimately, what arrives in *Altazor*’s uncertain, final fluctuations is the mapping out of a particular path, essentially a complex, verbal wave function made to “choose” an outcome among myriad possibilities.

Notes

1. This article is for Luis Correa-Díaz, poet, cosmonaut, and celestial wanderer.
2. All translations of critical work on *Altazor* are mine; all translations of *Altazor* itself are by Eliot Weinberger.
3. Notably, translator Eliot Weinberger questions the efficacy of critical approaches that read *Altazor*’s fall as a function of Icarus-like/Christian allegories (x), which in turn casts doubt on the teleological structuring of the move through space in *Altazor*.

4. See de Costa, Dussuel, Goic, Quiroga, Sucre, and Yúdice, in particular.
5. Huidobro's *creacionismo*, an avant-garde aesthetic movement of limited transcendence in the 1910s and 20s, essentially glorified poetic and artistic activity as one of pure creation in the face of all previous artistic traditions' imitation of Nature, the actions of man, etc. See Huidobro's numerous, insistent manifestos for self-authorized valorizations of the *creacionista* project.
6. Eduardo L. Oritz has written on the reception of relativity in Argentina—see “The Transmission of Science from Europe to Argentina and its Impact on Literature: From Lugones to Borges” and “A Convergence of Interests: Einstein's Visit to Argentina in 1925.”
7. Although I have been unable to determine the depth of Huidobro's engagement with these revolutions occurring in physics, there is ample evidence of an active scientific community in Chile concerned with the new discoveries. See Gutiérrez and Gutiérrez for a discussion of the history of the development of physics in Chile from the start of the Republic until 1960.
8. On the reception of relativity in Europe, see in particular Michel Biezunski (“Einstein's Reception in Paris in 1922” and Thomas F. Glick (*Einstein in Spain: Relativity and the Recovery of Science*).
9. For a discussion of the nature of paradigm shifts in scientific thinking, see Kuhn's seminal works *The Structure of Scientific Revolutions* and *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought*.
10. N. Katherine Hayles dates the advent of quantum mechanics to 1927, the year in which Werner Heisenberg formalized the uncertainty principle (*The Cosmic Web* 43).
11. See N. Katherine Hayles for a clear discussion of the non-linear dynamics of meteorology, insofar as tiny changes and fluctuations in non-linear systems can have large-scale effects (*Chaos Bound* 12).
12. The musical or rhythmic analogy recalls Edmund Husserl's discussion of the perception of time-consciousness, insofar as a melody—heard as a succession of musical elements (rather than a simple series of isolated tones)—shows how the phenomenological account of the present brings with it past and future through retention and protention, respectively (Husserl 186).
13. The famous “EPR” (Einstein-Podolsky-Rosen 1935) paper, “Can Quantum-Mechanical Description of Physical Reality be Considered Complete?” is the historical touchstone for the supposed incompatibility of quantum indeterminacy with the classical/Newtonian view of the universe. This landmark article, however, would inevitably contribute to the advancement of quantum mechanics itself in a number of nuanced, complex ways, and would ultimately prove Einstein wrong.
14. Eliot Weinberger's translation of *Altazor*, while excellent in general, loses the chemical and linguistic substitutions present in the original.
15. Alicia Rivero describes some of the issues linking quantum uncertainty, in particular, with quantum fiction in “Heisenberg's Uncertainty Principle in Contemporary Spanish American Fiction” (*Science and the Creative Imagination in Latin America*).
16. These quantum fluctuations, in a way, anticipate the contents of the infinite library in Jorge Luis Borges' short story “La biblioteca de Babel” (among other fantastic and simultaneously metaphysical writings by the Argentine author).
17. This larger Derridean argument can be found in several places in the French philosopher's writings—particularly helpful here are *Positions* and *Rogues*, among other books.

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