

Titel: Mathematics as metaphor : Samuel Beckett and the
esthetics of incompleteness (text in English)

Auteurs: CULIK (H.)

Jaar: 1993

Bron: Papers on language & literature ISSN: 0031-1294 vol.
29 (issue 2) p. 131-151 (refs.33 ref.). United States.

Samenvatting: Pythagorisme, approximation, fragmentation et
quadrature du cercle dans l'esthétique beckettienne de
la créativité perpétuelle

6017 pap
Culik, H.
1993

①

Mathematics as Metaphor: Samuel Beckett and the Esthetics of Incompleteness

Hugh Culik

When Samuel Beckett first visited France as an exchange lecturer from Trinity College to the École Normale Supérieure in Paris, he seized upon the opportunity to join the literary culture of Paris. His youth—he was but twenty-two years old—did not obscure his intelligence, for within the year he had met James Joyce and entered into the older Irishman's intellectual orbit. Beckett was some twenty-four years younger than Joyce, whose reputation was already secured: *Ulysses* had been out for about six years, and fragments of *Finnegans Wake* were already appearing in *transition*. The subsequent history of their friendship is convoluted, but Beckett acted as translator, confidante, and polemicist for Joyce.¹ Joyce's decision to use his young friend's exegetical powers to voice the central critical tenets of *Work in Progress* demonstrates Beckett's immersion in both Joyce's coterie² and in the Modernist milieu.

Thus, in 1929, when he was only twenty-three years old, Beckett wrote "Dante . . . Bruno . Vico . . Joyce," the principal essay of *Our Exagmination Round his Factification for Incamination*

¹Both Richard Ellmann and Deirdre Bair examine this relationship and conclude much the same thing, i.e. that the elder Joyce at first dominated the relationship and that Beckett outgrew it. Dougal McMillan details Beckett's connection to *transition* and other aspects of Parisian literary life in the late 1920s and 1930s. For a recent examination of their relationship, see Carey and Jewinski. For an example of the important critical work Beckett performed on Joyce's behalf, see Linda Ben-Zvi.

²Beckett's loyalty is rewarded by at least two references within the text, once for his bewilderment (112) and later for probing the weakness of language (467).

of Work in Progress. The work, however guided by Joyce's needs, is wholly Beckett's; it is here that I begin, for my interest is in how, out of his immersion in the intellectual life of Modernism, Beckett emerged as a highly problematic Post-Modern. His death at age eighty-three in December of 1989 truly signaled the remoteness of the Modern era, for while he has been our contemporary, his creative life began among the great Moderns, and with his death, the last link to that era suddenly seemed to break. In his aesthetic agenda we see both the residue of the earlier era and its reformulation, a reformulation through a strategy that relies upon the metaphoric power of non-literary fields such as neurology, aphasiology, and mathematics to represent two related ideas: first, the descriptive (in)sufficiency of language, and second, the (in)ability of a formal system to comprehend itself.

Beckett's struggle with emergent ideas about descriptive sufficiency is idiosyncratic, but it also arises out of a cultural matrix that had problematized the question. Beckett was not alone in his concern about the adequacy and completeness of formal systems. As Douglas Hofstadter has shown, these concerns were at the heart of the mathematical debate that culminated in Gödel's Undecidability Theorem. Beckett's interest in mathematics is as a metaphor for the art he will create, but the juxtaposition of the mathematics and the literature clarifies the persistence of Modernist questions about language into Post-Modern fiction.³ But let us begin with the particular case:

³Peter Burger differentiates the Modern from the avant-garde on the basis of their theoretical differences, a difference about negation—the former an intra-literary assault on techniques, and the latter an assault on the social relation of art to the larger culture. Beckett's technical innovation is thus Modern in Burger's terms, but his subjectification of the themes of linguistic failure is curiously both Modern and Post-modern because its profound skepticism embeds an anti-totalitarian stance: how can the totalisms of fascism and its kin persuade those who chose to inhabit the uncertainties of systematic representation? Logo-centric Beckett may be, but it is a logocentrism turned against the authoritarian impulses of this century. In this sense, Beckett's highly subjective fictions constitute a social critique, and—in Burger's terms—fall into the avant-garde. Dozens of others disagree; Barthes finds Beckett a later Modern, as does Lukács.

Beckett's most recurrent mathematical allusion is to Hypasos the Akousmatic, a Pythagorean who, the narrator of *Murphy* tells us, "was drowned in a puddle . . . for having divulged the incommensurability of side and diagonal" (47). The allusion is to the following problem: the Pythagoreans supposed that any point on a line could be named as the ratio of two whole numbers. This mathematics was not abstract, but concrete; for example, numbers were portrayed by a series of dots (called Monads), and the complex ratios used to describe geometric figures served to demonstrate that reality is, at its most fundamental level, mathematical (Koestler, Guthrie). A quantity such as $\sqrt{2}$ contradicts this fundamental belief because it is a quantity inexpressible as the ratio of whole numbers—hence its designation as an "irrational" number. The familiar formula for determining the length of the hypotenuse of a right triangle,

$$A^2 + B^2 = C^2$$

often yields such "irrational" numbers, numbers that exist in what mathematicians term a "surd" relationship. Hypasos's sin was to reveal that there are points on the number line that cannot be named as ratios of whole numbers, i.e., that the cherished connection between numbers and reality was in fact discontinuous. For this he was killed. Murphy's connection to this renegade Pythagorean is emphasized by his obsession with fire. Hypasos had denied Pythagoras' notion of number by claiming fire as the first principle.

Beckett finds the Pythagorean struggle with irrational numbers emblematic. Between 1929 and 1938 he frequently makes this simple analogy: just as the Pythagoreans could recognize only "rational" numbers (ratios of whole numbers, e.g., 1, 2, 3, 4) so literature—a linguistic phenomena—can only express the parts of the self that exist through language. "Irrationality," whether numerical or psychological, is problematic to traditional forms of knowledge. Here, mathematics provides a sort of

diagnostic analogy. The limited ability of the Pythagorean system to name some quantities is a token for the inability of the prevailing literature to represent some aspects of the self. Beckett's response is to envision a new sort of literature, one dedicated to those parts of the self that exist outside of language. Just as mathematics has developed by naming the gaps and holes in the number line, so literature will develop by finding a language for the gaping silences of the psyche. Beckett focuses on the Pythagorean system's failure, and his Pythagorean metaphors—tersely explicated in a series of polemical, critical, and imaginative works—evolve this definition of the self as divided between two modes of being. Unlike his Modernist forbears, Beckett makes a radical distinction between this second self and language. Where others directly or implicitly tell us that the limits of language are the limits of the self, Beckett revolts against this equation and, paradoxically, seeks to expand literary technique to express other aspects of being. The (in)adequacy of numbering systems often stands as metaphoric of his quest for new terms that will express the heretofore silent modes of being. As the Mandarin says in Beckett's abandoned novel *A Dream of Fair to Middling Women*, "you simplify and dramatize the whole thing with your literary mathematics" (48).

But it is not only to diagnose the predicament of literature that Beckett turns to mathematical metaphors. His second type of mathematical allusion is to the problems of successive approximation: computing square roots, the bizarre probabilism of the Seventeenth-Century mathematician John Craig,⁴ asymptotes, limits, and exhaustive enumeration. Where the Pythagorean allusions diagnosed the need for literature to name the self's wordless states, these suggest the aesthetic remedy. Because his subject (the self) is defined as, in part, extra-

⁴Richard Nash situates Craig's *Mathematical Principles of Christian Theology* (a mathematical treatise that formulated the rate of decay in belief in the gospels) in the social and intellectual matrix of the seventeenth century in order to understand emergent notions of probability, credibility, and belief.

linguistic, Beckett's strategy is to approximate. Characters fuse, transform, and dedifferentiate; sentences develop only to be accompanied by the signs of their own cancellation; formal properties are foregrounded in order to manifest the figure outside the text. Beckett's strategies of approximation are condensed into mathematical analogies. Just as the area under a curve may be calculated by summing an infinite series of approximations, just as a square root may be approximated by a succession of averages, or a probability be inferred from a succession of events, so may the wordless modes of being be manifested through the aesthetics of successive approximation.

Beckett first makes an analogy to irrational numbers in his essay on Joyce's *Work in Progress*, and while it is not made to question the systematic limitations of language, it does begin his use of mathematics to determine the shape of his future aesthetic:

There is no difference, says Bruno, between the smallest possible chord and the smallest possible arc, no difference between the infinite circle and the straight line. . . . Consequently transmutations are circular. (21)

This notion of Bruno's is the metaphor through which Beckett proclaims that Joyce's language makes contact with phenomena. The essay, written at Joyce's behest, articulates Joyce's goal of making language slough its decadence and reach directly into "the pre-lingual symbol" (25). In this optimistic appraisal, Joyce is seen as obliterating the difference between form and content:

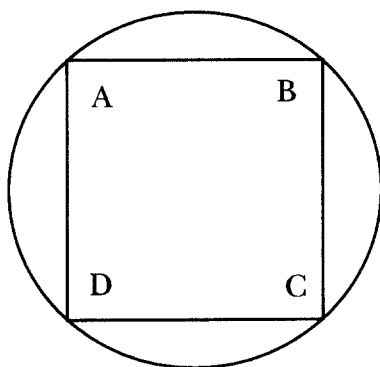
Here, form is content, content is form. You complain that this stuff is not written in English. It is not written at all. It is not to be read—or rather it is not only to be read. It is to be looked at and listened to. His writing is not *about* something; *it is that something itself*. (27)

At first blush, Beckett may seem to argue that language is itself reified, but his emphasis is on the descriptive sufficiency of words to objects. Although the individual words of which Joyce compounds his neologisms are understood as remote from the "pre-lingual symbol," the difference between the linguistic and

the pre-linguistic is overcome by amassing the attempts of sophisticated cultures to reach back to the thing itself. The amalgamated failures signal the abyss between the sophistication of English and the directness of gesture. Beckett notes Joyce's source for this process:

This reduction of various expressive media to their primitive economic directness, and the fusion of these primal essences into an assimilated medium for the exteriorization of thought, is Vico, and Vico, applied to the problem of style. (29)⁵

The fundamental metaphor of "the smallest possible chord and the smallest possible arc" alludes to the problem of squaring the circle. Consider the following diagram:



Each side of the square ABCD inscribed in the circle is a chord. The space between each chord and the arc above it can be filled with successively smaller polygons but no matter how many—and how small—we make these successive polygons, the smallest possible arc and the smallest possible chord will never be identical. The chord and the arc it intercepts are related through a formula involving π , and thus inevitably linked to irrational numbers. Beckett's metaphor appears ironic for praising an art that pretends to bring two things into contact with each other.

⁵John Schaeffer details the various (mis)uses of Vico by twentieth century critics.

But Beckett is not ironic; this metaphor focuses upon an issue problematic to both Joyce and himself: the sufficiency of language as a representational tool for the “exteriorization of thought” (29).⁶ Beckett saw Joyce’s novel as successfully negotiating a linguistic incommensurability, but in his own work he will distance himself from the possibilities he ascribes to Joyce’s language. While praising Joyce for re-creating a “savage economy of hieroglyphics” (28), Beckett’s own work struggles neither to reconnect the word with the world nor to assert the commensurability of rational and irrational, but to show where words cannot go—that is, to see the abyss which Joyce bridges. Beckett describes Joyce as attempting to establish a language to represent thought and objects, but as Beckett comes to understand the self as larger than the language it employs, he has to find critical metaphors and artistic techniques to serve his own notions.

Two years after the essay on Joyce, Pythagoras reappears in Beckett’s monograph on Proust. Beckett again uses the limits of numbering systems as a metaphor for the limits of language. He begins by saying that “The Proustian equation is never simple.” Proust “accepts regretfully the sacred ruler and compass of literary geometry” because “[h]e is aware of the concessions required . . . by literary convention” (1-2). The post-Pythagorean shift to geometry was represented by the Euclideans whose mathematics allowed only the ruler and compass as tools. This shift was itself symptomatic of the crisis of incommensurability and created a division within mathematics between algebra and geometry that was to remain problematic until Descartes’ work. All these mathematicians struggled with the problem of commensurability, the problem Beckett associates with Proust’s

⁶Schulte-Sasser remarks, “if material, unarticulated experiences exist, and if their effect is a psychic tension of some kind, then different degrees of verbal approximation and, thus, of conscious understanding are possible.” His play of Adorno against Burger goes on to assert that “one should not allow this one aspect of how language works to be transformed into the only hermeneutically constitutive factor” (xxviii).

struggle to express "the many concessions required of the literary artist by the shortcomings of the literary convention" (1-2).

Beckett notes that Proust's characters appear intermittently within the time-line of the novel, and often after crucial experiences have changed them. Re-creating these experiences is a product of a psychological process he calls "involuntary memory," and involuntary memory is a different order of experience than "habit" and "voluntary memory." There are literally gaps in the novel, gaps reminiscent of the gaps in the number line that confronted the Pythagoreans. Language can reconstruct these events, but only by submitting to the "immediate, total and delicious deflagration" (20) of involuntary memory. By representing this psychological process, Proust expands the realm of literature just as surely as accepting irrational numbers expanded the scope of mathematics.

This expansion of literature proceeds by confronting the relation of subject and object: "Exemption from intrinsic flux in a given object does not change the fact that it is the correlative of a subject that does not enjoy such immunity. The observer infects the observed with his own mobility" (6). Ruby Cohn notes that it is "a minor note in *Proust* that will become Beckett's major critical chord—the mobile subject before an evanescent object" (9). The subject is problematic because the self has various and contradictory ways of experiencing the world. These modes often exist in an irrational relationship, a relationship that can be expressed only in imagery that turns inward to embody the creative experience. Just as all the points on the number line are not named as ratios of whole numbers, so reality is not fully named by habit and voluntary memory. Beckett asserts that only Proustian involuntary memory provides a term of relationship:

The identification of immediate with past experience . . . amounts to a participation between the ideal and the real, imagination and direct apprehension. Such participation frees the essential reality that is denied to the contemplative as to the active life. (55-6)

This is simply a statement of commensurability, a commensurability achieved through the reflection of a particular psychological process—involuntary memory—used by Proust. Beckett understands Proust's techniques in terms of their power to expand literature:

but thanks to this reduplication the experience is at once imaginative and empirical, at once an evocation and a direct perception, real without being merely actual, ideal without being merely abstract, the ideal real, the essential, the extra-temporal. (56)

While both "Dante . . . Bruno . . . Vico . . . Joyce" and *Proust* emphasize similar aspects of the Joycean and Proustian worlds, e.g., their devotion to the concrete, Beckett stresses the division of the self into two parts, one dependent on language and the other an extra-linguistic mode of being.

In *Proust*, the language-using self is treated as a series of states characterized by momentary perspectives. It appears and disappears with speech, and here, as Linda Ben-Zvi notes, "The ego is contingent; it does not exist apart from language" (192). Present time and this self prove nearly identical.

The individual is the seat of a constant process of decantation, decantation from the vessel containing the fluid of future time, sluggish, pale and monochrome, to the vessel containing the fluid of past time, agitated and multicoloured by the phenomena of its hours. (45)

Time works continually to modify the "subject . . . resulting in an unceasing modification of his personality, whose permanent reality, if any, can only be apprehended as a retrospective hypothesis" (4). The self exists only as a series of discrete moments, its continuity interrupted as surely as the flow of rational numbers seemed interrupted by irrational numbers. Knowlson and Pilling note that "what is new in Beckett's attitude is a profound interest in the mechanics of the relationship between subject and object" (244).

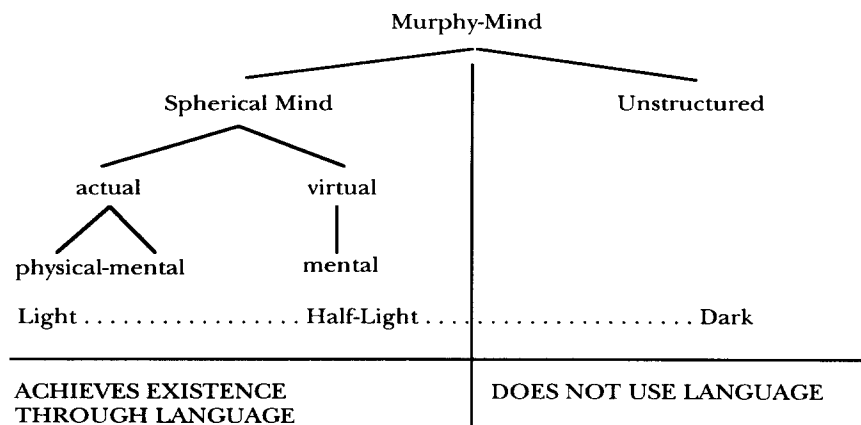
In Proust's work, Beckett discovers an abyss between reality and art, subject and object: "Proust respects the dual signifi-

cance of every condition and circumstance of life. The most ideal tautology presupposes a relation and the affirmation of equality involves only an approximate identification, and by asserting unity denies unity" (69-70). Throughout the monograph, Beckett's emphasis is on the problematic relationship between the writer and his objects, one of which becomes this wordless self. By the time of Beckett's mature French fiction, the key interest is not the relation of subject and object, but the intramural relationship of the language-using self and the extra-linguistic self that is so often its object.

However dubious Beckett grew in his assessment of language, the Modernist aspiration to descriptive fullness clogs *Murphy*, even if only as the subject of its satire. An elaborate counterpointing of modern and archaic sciences structures the novel, counterpointed allusions that express the part of the mind that exists through the exercise of language; but however Joycean this may seem, it is a frenzied sort of civil war: astronomy and astrology compete to explain celestial phenomena while philosophy and neurology compete to explain the characters' behavior. Each system effectively cancels some other set of allusions until we are left with an overwhelming sense of the gap between any systematic form of statement and the reality it attempts to represent. Where Beckett praised Joyce for obliterating the space between language and things, his own novel insists that systematic knowledge is only a temporary stay against chaos. It schematically presents what will more subtly become a hallmark of his mature fiction: the "statement . . . followed by the immediate retraction of what has been stated" (Iser 164). Of the trilogy, Iser goes on to note, "In the configurative meanings of the game, the self is present insofar as it is a possibility of meaning, and the more variations of play there are, the more prominently will the basic self emerge, increasingly overshadowing its individual manifestations" (170). But in *Murphy*, the self

does not emerge from the proliferation of literalized systems. Beckett retains his focus on the sufficiency of language, and finds it inadequate. Only later in his career will he make the wordless self emerge from the futile succession of attempts to state it (e.g., the revolving figures of *Footfalls*, or the variant voices of the trilogy) but *Murphy* suggests an early form of that strategy.

The fragmentation of the self is codified in Chapter Six, the description of Murphy's mind that first divides the mind into a sphere and its unstructured observer. Beckett's description develops three major divisions, one a variant on the Cartesian mind-body split, a second that dispenses with the body, and the other a looming "zone" that is "dark" where there are "neither elements nor states, nothing but forms becoming and crumbling into the fragments of a new becoming, without love or hate or any intelligible principle of change" (112). Beckett's model can be schematized:



While parodic and obscure, the chapter establishes the intramural relations of the mind as central. To Descartes, bodily motion suggested the "psycho-somatic fistula" (219) so vigorously denied by Murphy, but Descartes mediated his mind-body dualism through the action of the soul which he supposed to reside in the pineal. The possibility of motion in a plenum was an issue debated from the time of the Greeks; it is essentially a question

about the reality of a void—of a place for extended matter to be moved into. Within the model of Murphy's mind, the "void" suggests the hiatus between mind and body. The conflation of these issues is arbitrary, but all share a concern about how differences can be mediated: differences between mind and body, differences in points in space. Motion, like "the cyclic dynamism of the intermediate" in Beckett's essay on Joyce, implies another aspect of experience: to Descartes, motion suggested the action of mind upon body, and thus some mediational force, i.e., the soul. To Beckett, the idea of a dynamic between contraries underlies his idea of art. From Belacqua to the pairs of figures (Mercier and Camier, Watt and Sam, A and C in the trilogy, Vladimir and Estragon, the pacing and standing of May in *Footfalls*), the image of motion suggests connections between things. The travels of his tramps are attempts to find connections between psychological geographies. The only concrete description in Chapter Six of *Murphy* concerns motion:

He was split, one part of him never left this mental chamber that pictured itself as a sphere full of light fading into dark, because there was no way out. But motion in this world depended on rest in the world outside. A man is in bed, wanting to sleep. A rat is behind the wall at his head, wanting to move, the man hears the rat fidget and cannot sleep, the rat hears the man fidget and dares not move. They are both unhappy, one fidgeting and the other waiting, or both happy, the rat moving and the man sleeping. (110)

The spherical mind is thus associated with several key problems: motion, causality, the void, oppositions, and mind-body connections. The extra-spherical dark zone is "a flux of forms, a perpetual coming together and falling asunder of forms" (112). It is chaos unordered by the mind, and it suggests that the inactive observing mind receives stimuli, but does not submit them to the ordering propensities of language.

Beckett's model explicitly refers to the problem of continuity: continuity in mathematics, continuity of the self, and continuity between the self and an external world. The mathematical

allusion common to these descriptions of the self suggests that it has different modes of being, one of which is “dark” and unknowable to the others. The self’s modes of being have a relation that is, in mathematical terms, a “surd” relation, and of course the non-mathematical meaning of “surd” is “silent” or “deaf.” The narrator of *Murphy* describes Murphy’s mind as a “matrix of surds,” that is, its parts are in an “irrational” relationship. The vaunted notion of “silence” in Beckett’s work is frequently mistaken; rather than simply discovering an amorphous failure, the silence of language in regard to psychological realities becomes the occasion for developing a new enumeration system, for in the dark zone, humans are but “a point in the ceaseless and unconditioned generation and passing away of line” (112). The Pythagorean anxiety re-appears. That this bizarre model is of the mind of a suicide who seems to suffer from a pineal gland tumor (Descartes’ neurological locus for the soul’s mediational activity) should not blind us to the fact that it is filled with his persistent interests in systematizers: Cartesian philosophy, mathematics, and the adequacy of language to both the self and to objects.

Foremost among Beckett’s systematizers is Descartes, whose great contribution was to resurrect the Pythagorean ambition to mathematize the world, albeit in a radically more detailed fashion, and with another meaning (Davis and Hersch 3-8). Beckett’s immersion in Cartesian studies is well established; for example, his first published poem, “Whoroscope,” draws heavily on specialized knowledge about Descartes’s life, philosophy, and mathematics. In a set of footnotes, Beckett explicates allusions to mathematicians who submitted problems to Descartes; he also gives the name of the valet to whom Descartes assigned the easiest problems. Beckett’s familiarity with Descartes is as great as the immense obscurity of the poem. But such detailed knowledge also argues that he must have been well aware of the systematic intent to represent the world in terms of mathematics. Descartes’ project, like the Pythagoreans’, like Joyce’s, is an

attempt to achieve descriptive sufficiency through some form of language. The proliferation of allusions to scientific disciplines and the emphasis on Descartes emphasize Beckett's concern with how fully developed a system may be. Beckett's concern typifies the early decades of this century where this issue appears in many guises—philosophical, artistic, and mathematical.

The necessary incompleteness of systems is exactly the issue at the heart of Kurt Gödel's famous theorem. Nagel and Newman report that during the first three decades of this century, a "climate of opinion" had been generated by the work of Hilbert, Whitehead, Russell, and Frege, in which it was

tacitly assumed that each sector of mathematical thought can be supplied with a set of axioms sufficient for developing systematically the endless totality of true propositions about the given area of inquiry. (6)

In 1931, Gödel's startling proof that there are arithmetical truths which cannot be demonstrated was both liberating and disheartening: liberating because it had been achieved through an innovation in the method of his inquiry, but disheartening in the limitations it proved intrinsic to the completeness of formal mathematical systems. Hofstadter, following Nagel and Newman, remarks the dangers of taking this discovery out of context, but its metaphoric power, like the metaphoric power of irrational numbers, speaks to Beckett's concerns with language. Indeed, in his letter of 1936 to Axel Kaun, Beckett writes,

But it is not enough for the game to lose some of its sacred seriousness. It should stop. Let us therefore act like that mad (?) mathematician who used a different principle of measurement at each step of his calculation. (173)

The most obvious aspect of Gödel's work to the non-mathematician is that he develops a numbering system for proofs, formulae, and signs. By shifting between the arithmetized "meta-system" and the Gödel numbers assigned to them, he can discover holes in the completeness of the system. I am under no illusion that these few sentences explain Gödel's immensely complex work, but Beckett's letter points clearly to the mapping

of one system upon another. That he refers to a mathematician who shifts the “principle of measurement” strongly suggests he knows of Gödel’s work. That he would refer to a work on “Formally Undecidable Propositions” within a letter where he asserts “language appears to me like a veil that must be torn apart in order to get to the things (or the Nothingness) behind it,” is entirely consistent; the letter’s interest is in the failure of language to comprehend reality. Beckett’s goal is specific: “At first it can only be a matter of somehow finding a method by which we can represent this mocking attitude towards the word, through words,” and then he makes his break with what he sees as the Modernist aspiration:

With such a program, in my opinion, the latest work of Joyce [*Finnegans Wake*] has nothing whatever to do. There it seems rather to be a matter of an apotheosis of the word. (172)

Beckett retains the Modernist vocabulary of the self (the “I resolved to go and see my mother” of Molloy or the use of his mother’s name for the woman of *Footfalls*), psychology, and descriptive sufficiency, but they are the residue of that era, a residue revalued as emblems of a doomed linguistic project, a project that sought the sort of completeness destroyed by Gödel’s theorem.⁷

Subsequent to this letter is “Les Deux Besoins” (1938), which returns to the story of Hypasos, but this time with a clear sense of the aesthetic agenda that will drive Beckett’s work:⁸

⁷Jameson’s notion that pastiche supplants parody because “nobody has that kind of unique private world and style to express any longer” (18) emphasizes the collapse of bourgeois notions of the self. Beckett’s project manifests the self in non-material juxtapositions, omissions, and repetitions, a strategy which both enlarges the realm of the self and detaches it from the image.

⁸Of the five Platonic Solids (cube, tetrahedron, octahedron, dodecahedron, and icosahedron), the first three are Pythagorean in origin (Guthrie 268). The six-pointed star Beckett draws has twelve sides, and the number probably prompted the associative transition into the explicit Pythagorean allusion. Beckett clearly understands this, and

Regular dodecahedron, indeed too regular, having those dimensions within which the hapless All-Powerful tried to arrange the four elements—elements which bespeak Pythagoras—this divine figure whose construction depends upon an irrational, depends upon knowing the incommensurability of side and diagonal, a nameless and formless thing. Wasn't it for having betrayed this dark secret that young Hypasos died, lynched by a mob of eager adepts . . . ? He was neither fascist nor communist. (56; my trans.)

This piece, completed after the publication of *Murphy*, is Beckett's clarion call for an inward-turning literature. Hypasos, neither a fascist nor a communist, exemplifies the artist's obligation to voice the incommensurable relation between the varying modes of the self. It is the consciousness of incommensurabilities, and the literal notion of the artist as an irrational order of knowledge, that leads to the paradox so succinctly stated in *Three Dialogues*:

The expression that there is nothing to express, nothing with which to express, nothing from which to express, no power to express, no desire to express, together with the obligation to express. (139)

Beckett's famous pronouncement arises out of the dialogue's first part where he establishes his dissatisfaction with Matisse and Tal Coat for having a value only "cognate with those already accumulated" (139). The form of the desired art is succinctly described: "Two things are established, however precariously: the ailment . . . and its manner of dispatch" (144-45). Beckett continues, "All that should concern us is the acute and increasing anxiety of the relation itself." Iser notes that Beckett's narrators find it "increasingly impossible to conceive themselves—i.e. to find their own identity; and yet at the same time it is precisely this impossibility that leads them actually to discover something of their own reality" (174). Their own reality is so difficult because it extends beyond its language. The tiresome

his reference to arranging the four elements within the dodecahedron reflects the Pythagorean belief that the dodecahedron was the shape of the cosmos within which the four elements arose out of number itself.

rediscovery of “silence” in Beckett’s works often wears thin because it masks the generative power of the “holes” in the naming-line of language. Beckett’s praise for Van Velde includes an allusion to Pythagoras:

The history of painting . . . is the history of its attempt to escape from this sense of failure, by means of more authentic, more ample, less exclusive relations between representer and representee, in a kind of tropism towards a light as to the nature of which the best opinions continue to vary, and with a kind of Pythagorean terror, as though the irrationality of pi were an offense against the deity, not to mention his creature. (145)

Independent and internally consistent systems thus have had at least two meanings for Beckett: First, as in his essay on Joyce, a gap between words and things is a remediable artifact of language; this case finds Joyce’s palliative efforts possible. Second, oppositions evidence the fundamentally inadequate power of language to describe anything. This suggests a more paradoxical notion: that the losses language impose on the world should not be overcome, but that the losses themselves made the subject of literature. However clear Beckett’s abstract aesthetic, its implementation proves more tortured.

Beckett’s concern with the relationship between language and the self is the subject matter of *Watt*, written during Beckett’s time in the south of France during World War II.⁹ Beckett created the novel in the midst of Nazi terror, and the palpable threat of reified myth is evaded by making language a fructifying dynamic of approximation rather than an achieved correspondence. The novel is replete with mathematical allusions: squar-

⁹I have ignored the psychological dimension of this strategy, but I would note that it works for Beckett because it closely parallels a psychological process known as splitting, and of course image formation is the mechanism by which such splitting occurs. Elsewhere I have argued that the successive splitting of the maternal imago generates powerful texts such as *Footfalls*, *Rockaby*, and *Molloy*. Thus the concrete imagery of Beckett’s texts fuses Post-Modern ideas about incompleteness, approximation, and the limitations of language into congruent forces. They are congruent with broad cultural anxieties about explanatory systems, congruent with his own psychology, and ultimately congruent with certain fundamental patterns of creativity.

ing and cubing numbers, exhaustive enumeration, the formula for permutations, and infinite series. Beckett has said that the novel was written "to keep from going mad," and indeed it is about an institutionalized man named Watt. Watt's story is belatedly revealed as being told by "Sam," but more central to the argument here is Watt's condition: he is an aphasic, that is, he suffers from a neurological disorder that denies him the use of language. The fundamental question that underlies the study of aphasia is the question about what remains of the self when it is denied recourse to language (Culik, "Place"). If they are different, the self can exist without language; if they are identical on some structural basis, the self arises out of language and disappears with its loss. Watt's discovery is that there is indeed a self that exists apart from language.

The self that achieves existence through the exercise of language is the self that becomes troubled in *Watt* and collapses. Jacqueline Hoeffler's early appreciation of the novel notes that

In Watt's scientific and positivistic thought, to distinguish between what can be said about an event and what the event really means is sheer nonsense. Yet Watt persistently makes this distinction: he is content with an "outer meaning" which he can observe and make formulations about. But there is another kind of meaning, nonsensory and non-rational, indefinable in his terms, of which he is aware, though he purports to ignore its significance. (169)

Given Beckett's earlier definition of the new art as dedicated to the silences of the psyche, Watt's fear of the unnamable aspects of being reflects the risks of the quest.

He begins his stay at Mr. Knott's house uneventfully: "in the first week Watt's words had not yet begun to fail him, or Watt's world to become unspeakable" (85). But Watt's world collapses as his language collapses:

Watt now found himself in the midst of things which, if they consented to be named, did so as it were with reluctance. . . . Looking at a pot, for example, or thinking of a pot, at one of Mr Knott's pots, of one of Mr Knott's pots, it was in vain that Watt said, Pot, pot. . . . And it was just this hairbreadth departure from the nature of a true pot that so excruciated Watt. (81)

The issue that underlies *Watt* is clearly the limits of language, especially the sort of language employed in the sciences alluded to in *Murphy*. Those allusions and the type of language attacked in *Watt* seem to reflect Beckett's early pre-occupation with the language-making self and with its ludicrous failures. But where *Murphy* counterpointed rational systems (neurology-philosophy, astronomy-astrology) *Watt* counterpoints an intra-psychic disjunction between the limits of language and the extension of the self past that linguistic boundary.

However much *Watt* is controlled by its reaction against rational language, it also embodies nascent forms of the artistic strategies that will become the hallmark of Beckett's mature fiction. The allusions to Wurzburgian psychology, especially that of Henry J. Watt, point to their disturbing discovery that thought and consciousness were distinct. Their four-phase experimental structure provides the four-part structure of the novel, but the pervasive mathematical allusions point to successive approximation as the tool for expressing other aspects of the self. When Watt prepares his series of dogs to eat the remnants of Mr. Knott's supper, or when the idiot savant Nackybal computes roots, each goes through the same process: successive approximation. Just as Arthur's story about the savant is mediated by layer upon layer of narrators (Louit to the Committee, Arthur to Watt, Watt to Sam, and of course, Samuel Beckett to the reader), so the wordless self can only be approximated. The infamous Lynch family embodies this idea of a mathematical limit; their goal of having their ages total one thousand years is perpetually frustrated by their disease and decay. The millennium they represent is linguistic, and it is something to which they may move closer and closer, but never touch. The novel's tendency toward series, approximations, and multiple layers of narration suggests artistic strategies common to the mature fiction, strategies such as doublings, character fusions, and dedifferentiations, and the narrators who offer their stories as temporary hypotheses for the situations in which they find themselves.

10

The language that collapses is a facade, a crumbling frieze of misdirected attention toward the simple relation between words and objects. As this language collapses, it reveals the core of a greater structure, one devoted to the incommensurability of our language and the full range of our being. That Beckett does in fact go on to create just such an art argues for the influence of the mathematical models. Even more strongly, it argues for a vein of anxiety in the transition from Modern to Post-Modern, an anxiety about the threatening control of explanatory systems and about the terrors of their failure. Ultimately, Beckett's aesthetic turns to approximation—repetition, doublings, cancellations, open endings, and recursiveness as suitable techniques because they preserve the self by allowing it to arise out of its failures. Beckett's fiction reveals the residue of the Modernist project in its attempt to increase the representative range of language, but his definition of the self as larger than language leads to an aesthetic of approximation, incompleteness, and perpetual creativity.

WORKS CITED

- Bair, Deirdre. *Samuel Beckett*. New York: Harcourt Brace Jovanovich, 1978.
- Beckett, Samuel. "Dante . . . Bruno . Vico . . Joyce." In Cohn, 19-33.
- . "Les Deux Besoin." *Disjecta*. In Cohn, 55-57.
- . *A Dream of Fair to Middling Women*. In Cohn, 43-50.
- . "Letter to Axel Kaun." Trans. Martin Esslin. In Cohn, 170-173.
- . *Murphy*. New York: Grove, 1957.
- . *Proust*. New York: Grove, 1957.
- . "Three Dialogues." In Cohn, 138-145.
- . *Watt*. New York: Grove, 1959.
- . "Whoroscope." *Samuel Beckett: Collected Poems in English and French*. New York: Grove, 1977. 1-6.
- , et al. *Our Exagmination Round his Factification for Incamination of Work in Progress*. Paris: Shakespeare and Company, 1929.
- Ben-Zvi, Linda. "Samuel Beckett, Fritz Mauthner, and the Limits of Language." *PMLA* 95 (1980): 183-200.
- Burger, Peter, ed. *Theory of the Avant-Garde*. Trans. Michael Shaw. Minne-

- apolis: U of Minnesota P, 1984.
- Carey, Phyllis and Ed Jewinski. *Re: Joyce 'N Beckett*. Ithaca: Fordham UP, 1991.
- Cohn, Ruby. Foreword. *Disjecta*. By Samuel Beckett. New York: Grove, 1984. 7-16.
- , ed. *Disjecta*. By Samuel Beckett. New York: Grove, 1984.
- Culik, Hugh. "Neurological Disorder and the Evolution of Beckett's Maternal Images." *Mosaic* 22 (1989): 41-53.
- . "The Place of *Watt* in Beckett's Development." *Modern Fiction Studies* 29 (1983): 57-71.
- Davis, Philip and Reuben Hersh. *Descartes' Dream: The World According to Mathematics*. New York: Harcourt Brace Jovanovich, 1986.
- Ellmann, Richard. *James Joyce*. New York: Oxford UP, 1959.
- Guthrie, W. K. C. *The Earlier Presocratics and the Pythagoreans*. Cambridge: Cambridge UP, 1962. Vol. 1 of *A History of Greek Philosophy*. 5 vols.
- Hoeffler, Jacqueline. "*Watt*." *Perspective* 11 (1959): 166-82.
- Hofstadter, Douglas. *Gödel, Escher, Bach: An Eternal Braid*. New York: Basic, 1979.
- Iser, Wolfgang. *The Implied Reader*. Baltimore: Johns Hopkins UP, 1974.
- Jameson, Frederick. "Postmodernism and Consumer Society." In *Postmodernism and its Discontents*. Ed. E. Ann Kaplan. New York: Verso, 1988. 13-29.
- Joyce, James. *Finnegans Wake*. New York: Viking, 1959.
- Knowlson, James and John Pilling. *Frescoes of the Skull*. New York: Grove, 1979.
- Koestler, Arthur. *The Sleepwalkers*. New York: Grosset and Dunlap, 1963.
- McMillan, Dougald. *transition: The History of a Literary Era 1927-1938*. New York: George Braziller, 1975.
- Nagel, Ernest and James Newman. *Gödel's Proof*. New York: New York UP, 1958.
- Nash, Richard. *John Craige's Mathematical Principles of Christian Theology*. Carbondale: Southern Illinois UP, 1991.
- Schaeffer, John. "The Use and Misuse of Giambattista Vico: Rhetoric, Orality, and Theories of Discourse." *The New Historicism*. Ed. H. Aram Veesser. New York: Routledge, 1989. 89-101.
- Schulte-Sasser, Jochen. "Theory of Modernism versus Theory of the Avant-Garde." Trans. Michael Shaw. Ed. Peter Burger. *Theory of the Avant-Garde*. Minneapolis: U of Minnesota P, 1984. vii-xlvii.

