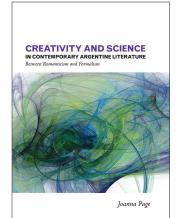


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CREATIVITY AND SCIENCE IN CONTEMPORARY ARGENTINE LITERATURE: BETWEEN ROMANTICISM AND FORMALISM

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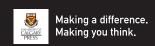
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Conclusion | Literature and Science, Neither One Culture nor Two

I have argued throughout this book that mathematical and scientific ideas are primarily adopted in the work of Martínez, Piglia, and Cohen as metaphors for the self-renewing capacity of literary creativity and evolution. This reflexive strategy differentiates their use of such metaphors from that of an earlier generation of British and North American writers, including Ballard and Pynchon; it also diverges from the more positive explorations of complexity and emergence in more recent anglophone fiction of the 1980s and 1990s. Peter Freese and David Porush have observed the rise of a new generation of science-fiction writers in the United States who, like Cohen, have abandoned visions of heat-death and found inspiration instead in Prigogine's dissipative structures, turning entropy "from a messenger of death into a harbinger of rebirth." For both Freese and Porush, this new direction is epitomized by the work of Lewis Shiner and Bruce Sterling. However, these novels are still written very much from within a skeptical postmodern framework: order may emerge from chaos, but the increasing complexity of the universe leaves the characters overwhelmed, stripped of all certainties and disorientated. Although Shiner's Deserted Cities of the Heart (1988) imagines a radical new order arising from the ashes of the old world, for his characters, "seeing the pattern" in the chaos around them and feeling

a sense of belonging in the universe, being "a part of the all," is only fleetingly possible, under the influence of life-threatening magic mushrooms.²

By contrast, metaphors such as entropy and complexity are almost always associated in the work of Piglia and Cohen with the creative work of literature; crucially, this places us as co-creators in the universe, not hapless observers of processes we cannot understand. Deleuze and Guattari suggest that if life creates "zones where living beings whirl around, [...] only art can reach and penetrate them in its enterprise of co-creation." Art and literature become a privileged means of participating in the creative fluxes of the universe.

ARGENTINE LITERATURE: THE REFLEXIVE TRADITION

How might we account for this divergence in the use of scientific ideas in contemporary Argentine literature? I have already argued, in the Introduction, that the work of Martínez, Piglia, and Cohen does not carry forward visions of the relationship between literature and science that we might find in Borges, Cortázar, Arlt, or more distant predecessors from the nineteenth century in Argentina. However, the acutely reflexive tradition of Argentine literature is an extremely important influence on the contemporary writers studied here and may go some way, in tandem with the widespread diffusion in Argentina of the work of Prigogine and other theorists of chaos and complexity, to account for the rather different uses to which scientific theories are put in these texts.

Important continuities mark the influence of Borges on the three writers discussed here. Although their engagements with mathematics and science do not have the primary aim – as they do in Borges – of undermining claims to universal truth, they do draw powerfully on his understanding of literature's self-generative capacity: the idea that – as Jaime Alazraki puts it – "books grew out of other books." Martínez's detective fictions owe a clear debt to the web of intertextualities woven in Borges's stories; Borges's de-individualized, Spinozan fictions (one man is all men, we are all William

Shakespeare) are reincarnated in Cohen's sense of the indivisibility of the world, as well as in Piglia's desubjectivized narrating machines.

It is Borges's incipient sense of the way in which mathematical theories may be appropriated for the theory and practice of metafiction that holds the greatest interest for these writers. Hayles observes that self-referential loops, which for Cantor represented a vexing problem in logic, become for Borges - in "La biblioteca de Babel," for example - a rich opportunity to bring into question the existence of an external reality.⁵ Piglia seizes on exactly the same potential that is inherent for him in the work of Gödel that, while demonstrating the limits of a certain kind of axiomatic logic, allows him to postulate the existence of virtual reality and other possible worlds.⁶ In Piglia, however, there is much less emphasis on the failure of logic to account for the universe and a much greater interest in the infinite potential of literary recombination that Borges's fictions explore. The myriad permutations of the alphabet that make up the library of Borges's "La biblioteca de Babel" give rise to a weary sense of meaninglessness; in Piglia's La ciudad ausente, the inexhaustible permutations of narrative nuclei are a source of resistance against authoritarianism and proof of the endless self-generating creativity of literature. In a similar way, Borges's textual labyrinths and puzzles are – at best – futile exercises and – at worst – veritable death-traps for the intellectual, while for Martínez in La mujer del maestro and Acerca de Roderer they may also be stimuli for innovation.

While their fiction and critical work stands out in its generation for its clear and recurrent engagement with scientific theories, Martínez, Cohen, and Piglia share many concerns with other contemporary Argentine writers who have approached the question of the relationship between science and literary creativity. The influence of Prigogine is evident in Mempo Giardinelli's *Equilibrio imposible* (1995), a flamboyant tale of the kidnapping of a family of African hippos brought to the Chaco region by the government to solve a local ecology problem. J. Andrew Brown develops a reading of the novel that hinges on its epitaph, a citation from Prigogine on the difference between equilibrium and non-equilibrium systems:

Un mundo en equilibrio sería caótico, el mundo de no equilibrio alcanza un grado de coherencia que, para mí al menos, es sorprendente [...]. No hay sistema estable para todas las fluctuaciones estructurales, no existe fin para la historia.⁷

A world in equilibrium would be a chaotic one; a non-equilibrium world attains a level of coherence that, for me at least, is surprising [...]. There is no stable system for all structural fluctuations, there is no end to history.

Brown demonstrates that the plot twists of Giardinelli's classic crime-andpursuit novel can be read as a series of Prigoginian bifurcations or unpredictable choices. These are chaotic in nature in the sense of being undetermined but generating patterns and new kinds of order at a higher level.8 The characters become aware that their roles are taking on an increasingly literary or cinematic quality: the criminal lovers escaping from the police, the textbook escape from prison, the daring rescue by helicopter. In the bizarre final pages of the novel, the remaining pair become caught up in a different dimension, that of literature, taking their place alongside Captain Ahab, Sancho Panza, Kafka, and Woolf before being swept up to safety in Jules Verne's hot air balloon. They are gathered up into a metaliterary sphere where disorder and unpredictability suddenly take on the serenity and coherence of a new kind of order. While Giardinelli's novel clearly experiments with the intersections between metafiction and self-organization/complexity, he does so in a way that diverges from Cohen's vision. The end of Equilibrio imposible seems to present literature as a place of stability, meaning, and equilibrium: elsewhere, too, he posits literature as a refuge from the anxiety with which we are condemned to pursue an elusive stability, one of "esos pequeños valores que todavía le dan sentido a la vida" (those little values that still give meaning to life).9 For Cohen, by contrast, literature is the place of turbulence, and any state of equilibrium – as we saw in "El fin de lo mismo," for example – is emphatically a fleeting one, immediately subject to further disorder.

Piglia and Cohen also share certain notions of creativity and dynamic change with César Aira. Aira's interest in procedure and process in

(avant-garde) art allows us to trace some analogies with Piglia's writing machines; the frequent clonings, hybridizations, and mutations of his fiction construct a universe in which forms are constantly in transformation. Aira's sustained exploration of the (Deleuzean) concept of the continuum, which – drawing on Leibniz – folds mind and matter, or fiction and metafiction, together, leaving no "outside," bears a notable resemblance to the connectionist vision of Cohen's texts. Of all other contemporary writers in Argentina, however, it is perhaps with the dramatist Rafael Spregelburd that Martínez, Piglia, and Cohen find the greatest affinity. In plays such as *Fractal* (2000), *La estupidez* (2003), and *La paranoia* (2008), Spregelburd has experimented with fractal geometry, chaos theory, and Prigoginian thermodynamics as ways of structuring a piece of theatre as well as reflecting on the complexity of the universe, and he often draws on such theories in his critical work.

Martínez, Piglia, and Cohen share with these writers – and with so many of their predecessors in Argentine literature, stretching back through Borges and Cortázar to Arlt and even to Holmberg and Sarmiento – an interest in incorporating the non-literary within literature as a crucial part of their metafictional interest in the construction and evolution of literature itself. They interrogate the wider, social meanings and consequences of scientific developments and discourses, but they do so in a way that brings to the fore literature's own significance within society, and its own modes of circulation and evolution.

The remaining parts of this Conclusion will focus first on the implications of the theories of creativity developed in the work of Martínez, Piglia, and Cohen for literary and critical debates before returning to the broader question of the relationship between the "two cultures" of literature and science. From a discussion of the particular dialogue these texts establish with Romanticism's complex legacies for postmodern thought, I will then turn to another set of legacies, this time from Russian Formalism, to suggest how the texts studied here permit us to perceive points of articulation between these and Deleuzean approaches to literature. The radical (re)invention of textual genealogies that has become a hallmark of contemporary Argentine literature and criticism brings into view both the Formalist understanding of literary evolution as discontinuous and conflictive and Deleuze and

Guattari's concept of the literary text as an assemblage, co-functioning with other assemblages in topological (rather than historical) proximity to it. In turn, both of these frameworks share some affinities with the processes of change studied by theorists of complexity as, in Sadie Plant's words, "Complex systems do not follow the straight lines of historical narration or Darwinian evolution, but are composed of multiple series of parallel processes, simultaneous emergences, discontinuities and bifurcations, anticipations and mutations of every variety." ¹⁰

ROMANTIC INDIVIDUALISM AND THE CREATIVE UNIVERSE

Martínez's fiction gives ironic treatment to the concept of Romantic individualism that established, in Paul de Man's words, "the cult of the self as the independent and generative center of the work, the Promethean claim to confer upon the human will absolute attributes reserved to divine categories of Being."11 The figure of the inspired and rebellious genius is appropriated in La mujer del maestro and Acerca de Roderer in an account that proposes dialectical rationalism as a model for literary creativity and evolution, eroding differences between artistic vision and scientific discovery by showing how each is engaged in a struggle within and against tradition. Piglia and Cohen, for their part, entirely reject notions of Romantic individualism and strive instead to depersonalize authorship. In Piglia's fiction, the figure of the author becomes a veritable obstacle to the potential meanings of the text, and the narrative nuclei of his texts circulate freely within and beyond the text with no reference to the individual author as origin or genesis. In Cohen, both text and author are dispersed within their environments, and their creativity is part of a greater flow and exchange of energy in the system of the universe as a whole.

However, both Piglia and Cohen retain and extend a Romantic vision of the communion of all living things and the coparticipation of the human mind and creativity with the life of the natural world. Joseph Carroll asserts that "In place of the appeal to the creative power of gifted individuals, postmodernism transforms the individual into a passive vessel for the circulation of cultural energies."12 These texts contain nothing as lifeless as a "passive vessel," though: even their hard objects and machines pulsate with a life that transcends any distinction between the natural and the artificial; they do not dispense with agency but disperse it across the boundary between subjects, or between subjects and objects. The life that these texts engage in is creatively and exuberantly abundant. Their vision has much in common with Deleuze and Guattari's conception of "becoming-inhuman," a non-transcendent perspective that they find to be exemplified in Kafka's fiction: "Instead of being an image set over against the world, such as a mind that receives impressions, we recognise ourselves as nothing more than a flow of images, the brain being one image among others, one possible perception and not the origin of perceptions."13 Rosi Braidotti draws significantly on Deleuze and Guattari in the "philosophical nomadism" she defends for its model of the body as not wholly human but "an abstract machine, which captures, transforms and produces interconnections."14 As Braidotti argues, the act of locating subjectivity in a dynamic process of becomings, composed of "non-human, inorganic or technological" forces, opposes both "contemporary bio-technological determinism" and "the anthropocentrism that is in-built in so much evolutionary, biological, scientific and philosophical thought."15

The commitment to immanence in Cohen's texts, and to some degree in Piglia's, undermines the elevated, transcendent position of the Romantic ironist. Although the act of creation is nearly always the subject of these texts, this reflexivity does not, as in Romantic literature, become an expression of the writer's "total freedom, his right to manipulate, to destroy as well as create," such that even an avowed failure in creativity "aims to demonstrate the artist's elevation over his work, his transcendence even of his own creation." In both Piglia and Cohen, literature is not primarily or solely a projection of the self but a space of encounter with the other that directly shapes our experience. By participating in literature's becomings, by approaching the perspectives of characters, animals, machines, biological systems, and inanimate objects, we recognize that our selves are not stable entities and that there is no point of transcendence from which we may perceive and interpret

life. This perspective grants us a vision of a literature that does not betray or obstruct our experience of an abundant life lying beyond it but participates fully, conscientiously, and joyously within it.

In the various theories of creativity and newness developed in texts by Martínez, Piglia, and Cohen, some important differences may be observed in relation to the teleological understanding of history that, via Hegel in particular, informed much Romantic theory. Martínez's work articulates a strong adherence to Hegelian dialectics, as filtered through Marxist-Leninist thought. His model of newness derives from the competition between rivals, from the bitter oneupmanship and double-dealings of writers seeking fame and fortune in La mujer del maestro to the struggle to outwit one's enemies in Crímenes imperceptibles and the overturning of established systems of thought in Acerca de Roderer. Innovation springs from the individual quest for distinction and entails striving against what has come before, simultaneously negating and preserving elements of tradition, but ultimately usurping its position of prominence. If this is a picture of the dialectical advance of science, it is one that is indebted to a Hegelian view of the unfolding of history as a dialectic between opposing forces that produce change when one overcomes the other. Indeed, one might note - along with Ernan McMullin - that the claim that science advances by means of a dialectical process "has always been a staple of Marxist-Leninism."17 McMullin finds the application of the Hegelian model of history to science unconvincing, in part because science does not always demonstrate the progressively fuller embodiment of reason that Hegel claimed for successive realizations of the Spirit in human civilizations;18 Hegel is, he argues, "still working with something like the classical Aristotelian understanding of science [...] as demonstration leading to necessary and unchanging truth."19 Although he consistently undermines such a notion of truth, Martínez does hold to a belief in a dialectical process that will inspire the advance of both science and literature.

The teleological drive of Hegel's vision of history, mapped by Martínez onto the development of scientific knowledge and artistic creativity, is entirely absent in Piglia and Cohen. Piglia decries the violence implicit in the Hegelian overthrow of each historical period by its successor, which appears in *Respiración artificial* to generate an endless series of massacres and civil

wars. However, he retains a vision of the dialectical process of historical and literary change, not as the linear march of Hegel's optimism, towards ever-greater progress and reason, but according to the Formalist model of opposition and refunctioning. Although contradiction is the source of newness in both cases, the latter dispenses with any notion of teleology: newness arises from accidents, throwbacks, mutations, and unprogrammed configurations and serves no other purpose than change itself and the renewal of forms.

Interestingly, in the models of self-organization explored by Piglia, and especially by Cohen, we may perceive a return to the origins of the dialectic in Hegel's thought, which derived from his observation of the self-organizing principles of nature. In his powerful vision of a transient universe in which everything is constantly in a state of becoming, his organicism and his search for alternatives to dualism, Cohen is perhaps more rigorously Hegelian than Martínez; indeed, recent scholars have noted some parallels between dialectics and emergentism.²⁰ The science of emergence and self-organization has no need of notions of progress, reason, truth, or transcendence in its theorizations of change. It lends itself superbly well to Cohen's exploration of multiplicity and the encounters between the self and the other that perpetuate an endless process of transformation. Unlike in Martínez, contradiction and opposition in Cohen do not provide the opportunity for a transcendent synthesis; instead, it is the absence of such resolution, the endlessly unfinished process of fusion and interchange, between the self and everything that it is not, that allows newness to emerge, located precisely at the point of tension between order and disorder.

FROM METAPHOR TO METAMORPHOSIS

If Cohen's work may be seen to return in some ways to Romanticism, it might be more accurate to speak of a shared resort to Eastern concepts of immanence to challenge the Western enslavement to transcendence, a "specifically European disease" in Deleuze and Guattari's book. 21 It is transcendence that posits a world outside of our perceptions and mistrusts language and images

as they are assumed to obscure a real world lying beyond their mediation. Here the writers discussed in this study part company. Martínez does retain a belief in a reality beyond our formulations of it, voicing a suspicion that language and our systems of knowledge often prove more helpful in concealing than revealing that truth. While Piglia frequently points to the power of language in shaping our perceptions, neither he nor Cohen view language as a mediator that stands between us and real experience: for both of these writers, language is that which brings experience into being.

Cohen describes "depth" as "el malentendido romántico más persistente" (the most persistent of Romantic misunderstandings), and one that "trabaja contra las libertades que legó el romanticismo" (works against the freedoms bequeathed by Romanticism). Deleuze and Guattari's objection to ideological and psychoanalytical criticism is based on their conviction that "Cultural forms, like literature, do not *deceive* us; they are ways in which desire organises and extends its investments. This can work positively, when intensities and affects are multiplied to produce further possibilities for experience." A similar approach is articulated by Cohen:

La tarea de la novela es reencantar el mundo, disolver la falaz dictomía entre razón e imaginación. Creo que la literatura tiene un papel fundamental en la lucha contra el control y a favor de la expansión de los sentimientos. Es una gran engañifa pensar que viendo documentales o programas de investigación vamos a lograr que el poder no nos engañe. El engaño viene a través de la falta de ambigüedad de las palabras. Con el lenguaje, cuando la gente cree que al pan, pan y al vino, vino, estamos sonados. [...]

No se trata de hacer arte político, sino política con el arte, como dijo alguna vez un artista conceptual. Lo primordial es darle otras posibilidades de vida al lenguaje, encontrar resonancias que permitan evadirnos hacia una realidad más real de la que conocemos.²⁴

The task of the novel is to re-enchant the world, to dissolve the false dichotomy between reason and the imagination. I believe that literature plays a fundamental role in the battle against control and for the expansion of sentiments. We are being conned if we think that by watching documentaries or investigative programs we can manage to avoid being deceived by power. Deception comes in the lack of ambiguity in words. With language, if people believe that a spade should be called a spade, we're in trouble. [...]

It's not about doing political art, but doing politics with art, as a conceptual artist once said. The essential thing is to give language other possible ways of life, to find resonances that allow us to escape to a reality that is more real than the one we know.

Piglia does retain certain ideas associated with a "depth model" of analysis, notably in his use of Jungian notions of archetypes and inheritance, but he does so most often in order to challenge individualism and to bring issues of construction rather than interpretation to the fore. For him, as for Cohen, language is not to be mistrusted as that which shields or bars us from the world beyond or encodes an ideology waiting to entrap us in old ways of thinking; instead, it is the source of new perceptions and possible forms of existence.

What Deleuze and Guattari most value in Kafka's writing is his rejection of metaphor in favour of metamorphosis:

It is no longer the subject of the statement who is a dog, with the subject of the enunciation remaining 'like' a man; it is no longer the subject of enunciation who is 'like' a beetle, the subject of the statement remaining a man. Rather, there is a circuit of states that forms a mutual becoming, in the heart of a necessarily multiple or collective assemblage.²⁵

From the pitfalls of metaphor to the power of metamorphosis: from a transcendent perspective on the literary text as a set of (dubious) transformations of a reality beyond it – according to which, Deleuze states, "Something always has to recall something else" 26 – we move to an immanent perspective

according to which the text forms new proximities, stages new encounters, and creates new experiences. Instead of reading the sea in Cohen's "La ilusión monarca" or Luca's dreams in Piglia's *Nocturno blanco* as symbols of something else, we may read them as apertures to new kinds of perception and transformation.

As Piglia writes in *Blanco nocturno*, "El conocimiento no es el develamiento de una esencia oculta sino un enlace, una relación, un parecido entre objetos visibles" (knowledge is not the revealing of a hidden essence but a link, a relation, a similarity between visible objects).²⁷ The role of criticism is to explore the act of creation, not to interpret the text as a series of signs; to consider how literature creates by forming and transforming links between things, not to approach it suspiciously as a cunning promulgator of concealed ideological agendas. Above all, it is to recognize our own implication in the text's vision, not as the compromised, positioned reader of deconstructive criticism, but as a reader whose experience has been altered, enlarged, and enriched by an encounter with the text. If, as Deleuze and Guattari argue, "artists are presenters of affects, the inventors and creators of affects," they "make us become with them, they draw us into the compound."²⁸

DELEUZE AND THE FORMALISTS ON LITERATURE AND NEWNESS

The ideas of creativity and literary evolution developed in and through these texts resonate strongly with Formalist theories in the case of Martínez and Piglia; the affiliation of these ideas in turn to the more recognizably Deleuzean vision of Cohen's texts allows us to trace some important correspondences between Formalist and Deleuzean thought.

Both Deleuzean and Formalist approaches can be read as challenges to what Tynyanov called the "individualistic psychologism" that has dominated literary history in the West, attempting instead to understand literary history as the evolution of forms, functions, and systems.²⁹ Deleuze and Guattari's concept of the assemblage bears a marked similarity to the manner in which

Formalists such as Eichenbaum, Shklovsky, and Tynyanov, discontented with wholly intrinsic approaches to literature, attempted to model the literary sphere as distinct and autonomous but continually co-functioning with other systems, closely related to them but not determined by them. The symbiotic co-functioning of Deleuze's assemblages ensures that "It is never filiations which are important, but alliances, alloys; these are not successions, lines of descent, but contagions, epidemics, the wind."30 Indeed, there are strong echoes in Deleuze and Guattari's work of Formalist ideas on the discontinuities and ruptures that characterize literary evolution, not least when they celebrate the Anglo-American "way of beginning" in literature, which does not (unlike the French tradition) "search for a primary certainty as a point of origin," but instead attempts "to take up the interrupted line, to join a segment to the broken line, to make it pass between two rocks in a narrow gorge, or over the top of the void, where it had stopped."31 Such writing is aligned in Deleuze and Guattari's philosophy with rhizomes, multiplicities, and "lines of flight": the possibility of evading the rigid, binaristic structures of "arborescent" thought.32

Both the Formalists and Deleuze explicitly reject a notion of the literary text as a repository of possible meanings for the critic to tease out, which bears witness to a prior (social or psychological) experience beyond it: instead, the text becomes a machine that produces experience, affects, and meanings. This is fundamental to the utopian dimension of both Formalist and Deleuzean thought on art: just as, for the Formalists, art has the power to shake us out of old perceptions and allow us to experience newness, so for Deleuze and Guattari, literature's potential to act politically derives from its anti-mimeticism, its expression of what is not yet. The task of the literary critic thus shifts from one of decoding referents to one of exploring textual construction, of observing how the text-as-machine co-functions with other machines, and of creating new meanings by bringing the text to function in different assemblages. The Formalist struggle to combine elements of the mechanistic with the organic in theorizing the literary text is resolved in more sophisticated terms in Deleuze and Guattari's machines, so different, in their potential for creativity and the dynamic relationship they set in motion between the human and the non-human, from the Enlightenment

conception of man as a machine, which made of humans mere cogs in a deterministic universe.

The connection between Deleuze and the Russian Formalists is perhaps not so surprising when one considers a shared precursor in the work of Bergson. The influence of Bergson's anti-monism on the theories of Shklovsky and Tynyanov is argued in persuasive detail by James M. Curtis, who particularly notes the importance of Bergson's distinctions between seeing and recognition for the Formalist understanding of art as the deautomatization of perception but also embeds the approaches of both Shklovsky and Tynyanov within Bergson's noncontinuous, heterogeneous time and space.³³ In turn, of course, the dialogue between Bergson's philosophy and modern physics (especially quantum mechanics) has been the subject of a number of studies,34 and if – in Deleuze's words – Bergson considered that "la science moderne n'a pas trouvé sa métaphysique, la métaphysique dont elle aurait besoin" (modern science hasn't found its metaphysics, the metaphysics it needs),35 many scholars have considered Deleuze's work, and particularly his exploration of virtuality and multiplicity in the monumental Difference and Repetition, as an attempt to supply that missing metaphysics.³⁶

Bringing Deleuze's ideas to co-function with Formalism in the manner that I have been suggesting shifts our focus a little: in addition to perceiving a line in philosophy and literary theory (uniting Bergson and Deleuze) that responds to the need to think through the implications of modern physics in those spheres and to develop a new metaphysics, we might also posit that some of these ideas do not originate, or solely originate, in modern science. They also arise from a desire to theorize the workings of literature, which was of course the primary aim of the Formalists. It has certainly been my contention in this book that, while the work of Martínez, Piglia, and Cohen often illuminates the insights of contemporary science and experiments with different ways of embedding them in literary and critical discourse, it does so principally in order to reflect on the theory and practice of literature and critical thought.

SCIENCE AND LITERATURE: NEITHER ONE CULTURE NOR TWO

Nonetheless, in Cohen's texts in particular, the repositioning of literary creativity within the greater creative flux of the universe allows us to theorize the relationship between literature and science in a way which avoids falling into the error of constructing them either as "two cultures" antagonistic towards each other, or "one culture" really engaged in the same enterprise. What these texts allow us to glimpse, instead, is a dynamic relationship between the two that is aptly evoked by the concept of rhizomes developed by Deleuze and Guattari, or by Serres's explorations of synthesis and multiplicity.

As argued throughout this book, Martínez, Piglia, and Cohen do not adopt the Romantic-postmodern view of science as a bastion of reason against the imagination, pursuing outdated claims to objectivity in a world of uncertainties. Science in these texts does not stand for the known, the mechanistic, or the absolute, but for the creative possibilities of the as-yetunknown and the wonderful adventure of the new. They respond instead to a different (and equally Romantic) attitude towards science: the genuine desire to forge a science and philosophy of life that informed the contributions of Schelling, Goethe, and others to the Naturphilosophie project. The specificity of literature is not located, therefore, in a rejection of science and technology. Unlike for the Romantics or for apocalyptic anglophone science fiction, the "enemy" in these texts is not a mechanistic science devoid of ethics. This role is more frequently played by the discourses of epistemological failure and cultural decline sponsored by postmodernism, together with the homogenizing effects of consumer-driven societies. In this battle, science may be an ally: scientific theories of chaos, complexity, and emergence appear to provide more delicate and precise tools with which to think about multiplicity and creativity than flattened-out, undifferentiated postmodern accounts of diversity, multiculturalism, or textual-play-as-political-resistance. N. Katherine Hayles finds in modern physics the most rigorous modelling of what she calls the "field concept," the notion of interconnectedness that traverses a number of scientific models and theories. In contrast to the

Newtonian idea of an atomistic reality, "a field view of reality pictures objects, events and observer as belonging inextricably to the same field; the disposition of each, in this view, is influenced – sometimes dramatically, sometimes subtly, but in every instance – by the disposition of the others." This vision is evident in Cohen's depictions of resonance and his theory of "realismo inseguro," as well as in the complex relationships between virtual and material realms in Piglia's textual machines.

According to J. Andrew Brown's hypothesis, Argentine literature throughout much of the nineteenth and twentieth centuries overwhelmingly registers a "test-tube envy," borrowing from science's legitimizing authority, either to shore up the status of literature itself or as a bid to supplant that authority. However, this is not the dynamic that we see primarily at play in the work of Martínez, Piglia, and Cohen. Science and its notational systems do not occupy a place of institutional authority in the work of these writers. Those mathematicians and scientists who feature in their narratives are almost always marginalized, or mad, and their interest is inexorably drawn to the pseudo-scientific, the unproven, the entirely hypothetical, the uncertain, or the unknowable. Nor is literature presented as an antidote to scientific advance. Instead, both literature and science are shown to be caught up in similar (or even the same) processes of creation and evolution. These texts find in science an endlessly creative pursuit of the new and a remorseless questioning of the established. It is the Formalists' conception of science "as a contest among competing theories" that perhaps marks most closely the spirit in which science is interpellated in these works.³⁸

If science is more commonly drawn in as an ally, it is nevertheless the case that all three writers insist on the specificity of literature, which extends our experience in very different ways, and rejoice in its current position at the margins of society. In Martínez's words, it has the ability to "revelarnos algo del mundo que no sabíamos, de alzar otro mundo en el mundo, de darnos una nueva forma de ver y de percibir" (reveal to us something of the world that we didn't know, to erect another world within this one, to grant us a new way of seeing and perceiving), affording us a specific way to "hacernos parte de algo que no hubiéramos podido aprehender con ninguna de nuestras otras facultades intelectuales" (participate in something that we

could not have grasped with any of our other intellectual faculties).³⁹ Piglia and Cohen vigorously defend literature's position at the margins of society. Cohen notes shrewdly that, as writing is unprofitable in the current economic system, society offers the writer a particular role to play as a form of compensation: "el papel de quien tiene la palabra legítima en el ágora, el sabio de la sociedad" (the role of having the voice of authority in the Agora, the wise man of society).⁴⁰ In return, however, "se le exige que la literatura sea comprensible, fresca, que comunique" (society demands that literature should be comprehensible, fresh, that it should communicate). In effect, it should perform the function of providing "una especie de airbag de la sociedad" (a kind of airbag for society), dealing with those metaphysical questions that each society needs to ask in order to convince itself that it is not indistinguishably glued to material things.

In place of this immediate and easily comprehensible literature, Cohen offers one that is markedly more provisional and that refuses to exercise any such kind of transcendence. Both Piglia and Cohen work to renew language from within, which is for Deleuze the effect that literature should have on language, opening up "a kind of foreign language within language,"41 becoming "a nomad and an immigrant and a gypsy in relation to one's own language,"42 in order to make "the standard language stammer, tremble, cry, or even sing."43 This also accords, of course, with the Formalist concept of art as the renewal of perception. The "becoming-other of language" is evident in Cohen's many (and unglossed) neologisms, the frequent shuttling between first- and third-person in the fictional "autobiography" of Donde yo no estaba, and the agency granted to inanimate objects in El fin de lo mismo; in the many immigrants of Piglia's texts who stumble ungrammatically through Spanish, the constant language-switching in "La isla," and the anachronisms and displacements of epistolary discourse in Respiración artificial; or in the use of parody and montage in Martínez's texts, wrenching language from its original context of enunciation.

It is clear that this creative renewal of language is understood as part of a broader gesture towards non-referentiality. We might find echoes here of de Man's insistence on the figural and rhetorical nature of literary language, and his critique of any approach that posits a straightforward division

between the text as ideology and a "real" world beyond it. To be polemical, literature needs to remain marginal and irreducible to straightforward communication, to become "minor" in Deleuze's terminology. In combating contemporary (consumer) society's own fictions, the best recourse of literature is – in Cohen's words – to "exhibitise como ficción pura, manifestar desinterés palmario, inconducencia, afán derrochador de juego, a lo sumo de especulación" (flaunt its status as pure fiction, to display a palpable lack of interest, unproductivity, a profligate zeal for gaming, at least for speculation). Resisting the temptation to capture or reflect reality, and above all to interpret it, literature finds its end in itself and declares that "los relatos nacen de los relatos" (stories are born from stories).⁴⁴

But perhaps more than all of these strategies, the "becoming-other" of both language and literature takes place in these texts' appropriation of the discourses of science and mathematics: Piglia's "becoming-machine" and his citations of Gödel in experiments with literary recursion; the tensions in Martínez's work between formal logic and Romantic excess; Cohen's textual renderings of the dynamics of chaos, complexity, emergence, and entropy. Deleuze asserts that "To write is to become, but has nothing to do with becoming a writer. That is to become something else."45 It is the point at which literature engages with what is not literature that it becomes most fully itself. The models Piglia and Cohen adopt from biology and physics, such as autopoiesis and self-organization, speak to the dynamics of literary construction and evolution; they also map out how exchanges work across disciplinary boundaries. These models imagine, like Deleuze's machines, "a 'proximity' grouping between independent and heterogeneous terms"46 in which organisms and systems retain their specificity precisely through the nature of their interactions with other systems and their environment.

Sadie Plant argues that, as theories of chaos and complexity "leak out" from the sciences to the arts and humanities, an "emergent connectionist thinking" is beginning to erode distinctions between the disciplines.⁴⁷ This "connectionism" has not been welcomed on all sides; neither has it always been practised with the rigour that such interdisciplinary work would require. Although Plant suggests that cultural studies has the "greatest potential" for dealing with such interconnectivity, it has not fully risen to

the challenge, principally because it "confines itself to conceptualisations of culture as a specifically human affair. Some notion of individual or collective agency is assumed to play a governing role in all cultural formations and productions." For Plant, this is an illusion that has been dismantled by recent science and its adoption in critical theory. At the heart of the collapse of those disciplines with which modernity attempted to order knowledge, she finds the demise of "the modern integrated, unified individual," together with the corrosion of boundaries between the human, the natural, and the machinic. As she asserts,

Complex biochemical processes function within, across, and in-between what were once conceived as autonomous agents, corroding the boundaries between man, nature and the tools with which he has mediated this relationship. The histories written as the histories of humanity can no longer maintain their independence from emergent processes in the economies and complex systems with which they interact, and attempts to define culture in the ideological, humanist and sociopolitical terms which have provided its post-war framework merely perpetuate a distinction between the human, the machinic and the so-called natural which underwrites modernity's techniques of policing knowledge and reality.⁵⁰

Serres chooses a geological metaphor to account for the multiple, complex and shifting channels of communication that may connect the humanities and the sciences, choosing as an image the sea route that links the Atlantic and Pacific Oceans across the archipelagoes and ice floes of the Canadian Arctic. "Le plus souvent, le passage est fermé, soit par terres, soit par glaces, soit aussi parce qu'on se perd. Et si le passage est ouvert, c'est le long d'un chemin difficile à prevoir" (the passage is most frequently closed off, whether by land or ice, or because one loses the way. And if the passage is open, it is along a path that is difficult to predict). Although Serres's work is one of synthesis, it avoids containing or fixing multiplicity within a solid, unitary structure, aiming instead to explore what he calls "a syrrhèse, a confluence

not a system, a mobile confluence of fluxes."⁵² He is not interested in finding a common language or a shared set of concepts that might bring the humanities and sciences together, as:

Universal metalanguage is comfortable and lazy.

Conversely, the best synthesis only takes place on a field of maximal difference – striped like a zebra or a tiger, knotted, mixed together – a harlequin's cape. If not, the synthesis is merely the repetition of a slogan.⁵³

The form Serres favours for such synthesis is often the encyclopaedia, in which strict taxonomies and totalizing unities are replaced by a web of inter-references, and "The traditional idea of evolution towards progress becomes instead a journey among intersections, nodes, and regionalizations."54 It is in Piglia that we can see the clearest embrace of a form that Calvino also refers to as "the contemporary novel as an encyclopaedia, as a method of knowledge, and above all as a network of connections between the events, the people, and the things of the world."55 Calvino suggests an important role for contemporary literature in attempting, "far beyond all hope of achievement," a kind of synthesis of different forms of knowledge that retains the singularity of each within a broader vision of multiplicity: "Since science has begun to distrust general explanations and solutions that are not sectorial and specialized, the grand challenge for literature is to be capable of weaving together the various branches of knowledge, the various 'codes,' into a manifold and multifaceted vision of the world."56 By working across disciplinary boundaries between literature, mathematics, and science, Martínez, Piglia, and Cohen construct a particular role for literature as a space for such encounters, countering the ever-greater tendency towards the specialization of knowledge. This does not mean the destruction of all specificities into an uncritical and amateurish morass of intellectual compromises: autopoiesis and self-organization provide useful models of the capacity of an organism to sustain its own form and identity through constant exchanges with other organisms and its environment. Neither, at the other end of the spectrum, are we permitted to posit a literature that is independent of that environment.

For both Deleuze and the Formalists, it is paradoxically the autonomy of literature that allows it to engage with other spheres around it: autonomy, as Jakobson insisted, does not mean separatism. ⁵⁷ Again, the science of chaos and complexity provides illuminatingly precise ways of thinking about such interconnectedness.

If these texts continually construct unexpected genealogies for themselves, rewiring literary history as they connect themselves to it to form multiple junctures, it is patently the case that they inspire, in turn, the tracing of similarly unusual filiations. These cannot be reduced to simplistic notions of influence but are better understood according to Cohen's model of resonance. One such connection links Shklovsky and Tynyanov with Deleuze (perhaps via Bergson); another charts points of affinity between Schlegel, Wallace Stevens, Buddhist nondualism, and theories of emergence. Another might locate in Bloch - a significant node in Piglia's web of filiations - a crucial point of convergence between Formalist ideas and complexity theory. Christian Fuchs claims that "What Bloch calls a novum is called emergent qualities in the sciences of complexity"; Bloch's understanding of matter as "a dialectically developing, producing substance" looks back to Spinoza's conception of nature as self-producing at the same time as it anticipates modern scientific theories of self-organization.⁵⁸ This line might in fact re-entwine two approaches I have sometimes contrasted here, a commitment to the dialectical development of knowledge (as expounded by Martínez, in a Formalist vein) and the immanent vision proper to Romanticism as well as theories of emergence (pervasive in Cohen's fiction).

The forging of such genealogies – some outlandish, some less so – inevitably obscures difference while revealing hidden homologies. My intent has not been to "explicate" these texts in relation to scientific principles or literary tropes but to recreate and to multiply the encounters they make possible with other texts and other systems. The lineages suggested by these texts and/or traced here do not enjoy the status of metanarratives but are provisional and subject to continual rupture and realignment; the process of constructing them is vital to artistic creativity and the production of new knowledge. Analogies and metaphors can be dangerously "mistaken," as Serres reminds us, "but we know no other route to invention."

All three authors write with Serres's synthesizing spirit, finding unexpected proximities and isomorphisms between literature and science in their exploration of creativity. The many models and metaphors that circulate in their fiction and critical essays do not hold the status of metalanguages; instead, they attempt – in fluid, provisional ways – both to account for the multiplicity and complexity of experience and to produce new encounters between different forms of knowledge. Hayles reminds us that the conventional studies of influence in literary works are "wedded to the very notions of causality that a field model renders obsolete." For this same reason, we should not "be misled by a causal perspective into thinking of correspondences between disciplines as one-way exchanges." Ultimately – to return again to the autopoietic metaphor – it may be that each discipline borrows from the other to transform, renew, and perpetuate itself, but from that process emerge new forms of experience and invention.

If this is the case, it is perhaps ironic that the challenge to Romantic individualism mounted particularly by Piglia and Cohen only reconfirms the enduring power of another Romantic invention: the self-positing question of literature itself. In their seminal study *The Literary Absolute*, Philippe Lacoue-Labarthe and Jean-Luc Nancy contend that literature in the modern sense dates from Romanticism, which posits "theory itself as literature or, in other words, literature producing itself as it produces its own theory."62 The highly reflexive and self-conscious texts of the three writers discussed here respond to the demands of what Lacoue-Labarthe and Nancy identify as "the critical age par excellence," that is, our age, stretching back to Romanticism, in which literature "devotes itself exclusively to the search for its own identity."63 If it is true, as they argue, that our own age is still immersed in the project of Romanticism and that "we have not left the era of the Subject,"64 it is also manifestly the case that in their return to certain ideas of creativity bequeathed to us by Romanticism, Martínez, Piglia, and Cohen revisit and re-open new ways of thinking about subjectivity, creativity, and literary evolution that both challenge and invigorate the Romantic projects of theory, literature, and literature as theory.

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Bibliography 247

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Notes

INTRODUCTION

- Eichner, "The Rise of Modern Science and the Genesis of Romanticism," 8.
- 2 See Sokal, "Transgressing the Boundaries"; the article is reprinted in Sokal, *Beyond the Hoax*, 5–91.
- 3 Gross and Levitt, Higher Superstition, 73–74.
- 4 Ibid., 74.
- 5 Best and Kellner, The Postmodern Turn, 226–44.
- 6 Livingston, Between Science and Literature, 7.
- 7 Ibid.
- 8 Snow, The Two Cultures.
- 9 Best and Kellner, The Postmodern Turn, 19, 196.
- 10 Ibid., 19.
- 11 Sokal and Bricmont, Intellectual Impostures, 136.
- Hayles, "Introduction: Complex Dynamics in Literature and Science,"4.
- 13 Best and Kellner, The Postmodern Turn, 219.
- 14 Ibid., 195.
- 15 Ibid., 19.
- 16 McCarthy, Remapping Reality, 17.

- 17 Hamilton, "From Sublimity to Indeterminacy: New World Order or Aftermath of Romantic Ideology," 14.
- 18 Schachterle, "The Metaphorical Allure of Modern Physics: Introduction." 177.
- 19 Beer, Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction, 5.
- 20 Martínez and Piñeiro, Gödel (para todos), 42.
- 21 Ibid., 44. All translations into English from original texts in Spanish (or French) are my own.
- 22 Ibid.
- 23 Bauman, Intimations of Postmodernity, ix.
- 24 Best and Kellner, The Postmodern Turn, 133.
- 25 Ibid.
- 26 Berry and Siegel, "Rhizomes, Newness, and the Condition of Our Postmodernity: Editorial and a Dialogue."
- 27 Barth, The Literature of Exhaustion and the Literature of Replenishment, 10-11.
- 28 Hamilton, "The Romanticism of Contemporary Ideology," 304.

- 29 Federman, "Imagination as Plagiarism [An Unfinished Paper...]," 572.
- 30 Ibid., 569-70.
- 31 Pope, Creativity, 235.
- 32 Ibid., 70.
- 33 See, for example, Hayles, Chaos and Order; The Cosmic Web; Livingston, Between Science and Literature; Paulson, The Noise of Culture; Porush, The Soft Machine.
- 34 González Echevarría, Myth and Archive: A Theory of Latin American Narrative, 110–25.
- 35 Brown, Test Tube Envy: Science and Power in Argentine Narrative, 28–54.
- 36 Ibid., 55-83.
- 37 Ibid., 74.
- 38 Nouzeilles, Ficciones somáticas. Naturalismo, nacionalismo y políticas médicas del cuerpo (Argentina 1880–1910), 21–22.
- 39 Haywood Ferreira, The Emergence of Latin American Science Fiction, 36.
- 40 Published under the pseudonym Víctor Gálvez.
- 41 Terán, Vida intelectual en el Buenos Aires de fin-de-siglo (1880–1910): Derivas de la cultura científica, 20.
- 42 Sarlo, La imaginación técnica: Sueños modernos de la cultura argentina, 38.
- 43 Ibid., 57.
- 44 Ibid.
- 45 Brown, Test Tube Envy, 26.
- 46 Hayles, The Cosmic Web, 15-23, 27.
- 47 Brown, Test Tube Envy, 219-20.
- 48 Villalonga, "Creo en las novelas y en sus posibilidades de metamorfosis permanentes" [interview with Marcelo Cohen].
- 49 Piglia, Crítica y ficción, 14.

- 50 See, for example: Brown, Test Tube Envy, 160–88; Ortiz, Cortázar el mago; Venegas, "El 'Principio de Incertidumbre' de Heisenberg y la narración intersticial de 'Axolotl' de Julio Cortázar."
- 51 These references include a mention of Morelli reading Heisenberg in Chapter 98 of Rayuela (559-60), a short description of the universe as explained by quantum mechanics in Chapter 71 of the same novel - in which "todo vibra y tiembla" (everything vibrates and trembles, 482) - and a brief comment in "Teoría del túnel" listing "la indeterminación en las ciencias físicas" (indeterminacy in the physical sciences, 107) as part of the Surrealist movement, alongside Cubism, Futurism, and Freudianism and other influences.
- 52 Brown, Test Tube Envy, 113-14.
- 53 Wiener, The Human Use of Human Beings: Cybernetics and Society, 36.
- 54 Hayles, The Cosmic Web, 17.
- 55 See Cohen, "El reencantamiento del mundo", discussed further in the Conclusion.
- 56 Black, "Newtonian Mechanics and the Romantic Rebellion: Introduction," 137.
- 57 Ibid.
- 58 Ibid., 138.
- 59 Stoicheff, "The Chaos of Metafiction," 85.
- 60 Bohm, On Creativity, 10.
- 61 Jantsch, The Self-Organizing Universe, 286.
- 62 Plant, "The Virtual Complexity of Culture," 213.
- 63 Garrett and VanWieren, "A Conversation with Andrew Brown," 159–60.
- 64 Ibid.

1 | THE SCIENCE OF LITERARY EVOLUTION: BETWEEN ROMANTICISM AND FORMALISM

- 1 Frye, Anatomy of Criticism: Four Essays, 132.
- 2 Martínez, "Lo que repito tres veces."
- 3 Erlich, Russian Formalism, 226.
- 4 Martínez, La mujer del maestro, 50-51.
- 5 Ibid., 126.
- 6 Ibid., 50.
- 7 Ibid., 120.
- 8 Ibid., 138.
- 9 Ibid., 92.
- 10 Ibid., 155.
- 11 Ibid., 123.
- 12 Barth, The Literature of Exhaustion and the Literature of Replenishment, 8.
- 13 Byron, "Manfred," 63 (Act I, scene ii, Il. 40–41).
- 14 Ibid. (Act I, scene ii, ll. 41, 43-45).
- 15 Martínez, La mujer del maestro, 121-22.
- 16 Ibid., 121.
- 17 Martínez, Borges y la matemática, 162.
- 18 Ibid., 164-65.
- 19 Aira, "La nueva escritura."
- 20 Martínez, "La literatura argentina y un chiste de Aira."
- 21 Martínez, Borges y la matemática, 166.
- 22 Ibid., 165.
- 23 Martínez, "Lo que repito tres veces."
- 24 Martínez, "Consideraciones de un ex político."
- 25 Martínez, "Eterna Cadencia, 2009."
- 26 Ibid.
- 27 Wellek, "Russian Formalism," 182.
- 28 Frye, Anatomy of Criticism: Four Essays, 97 (my emphasis).

- 29 Martínez, "Un plan a futuro."
- 30 Serra, "La fórmula de Guillermo Martínez" [interview].
- 31 See, for example, Tynyanov, "On Literary Evolution."
- 32 Frye, Anatomy of Criticism: Four Essays, 132.
- 33 Tynyanov, Dostoevskij and Gogol, cit. Eichenbaum, "The Theory of the Formal Method." 31.
- 34 Frye, Anatomy of Criticism: Four Essays, 344.
- 35 Shklovsky, "The Resurrection of the Word," 46.
- 36 Piglia, Respiración artificial, 191.
- 37 Piglia, Crítica y ficción, 99.
- 38 Massman, "La ficción acosada por la realidad: Narrar la historia en Respiración artificial de Ricardo Piglia," 98.
- 39 Piglia, Respiración artificial, 209.
- 40 Antonelli, "La figuración de la historia nacional en la novela realista: Del árbol genealógico al archivo," 11–12.
- 41 Gnutzmann, "La mirada histórica de Piglia en Respiración artificial," 271.
- 42 Avelar, "Como respiran los ausentes," 419.
- 43 Ibid., 420.
- 44 Ibid., 423.
- 45 Ibid., 424.
- 46 Colás, Postmodernity in Latin America, 130–31.
- 47 Piglia, Respiración artificial, 83.
- 48 Ibid., 84.
- 49 Ibid.
- 50 Ibid., 32.
- 51 Ibid., 77.
- 52 Ibid., 31.
- 53 Ibid., 209 (my emphasis).
- 54 Ibid., 184.
- 55 Ibid., 18.

- 56 Ibid., 153.
- 57 Shklovsky, "Art as Technique," 21.
- 58 See, for example, Cittadini, "Historia y ficción en Respiración artificial," 42.
- 59 See, for example, Piglia, Crítica y ficción, 71–76; 191–243.
- 60 Ibid., 195.
- 61 Ibid. What interests Piglia most about Tynyanov's approaches is his revision of the earlier stages of Formalist thinking. According to Formalism's first hypotheses, it is an internal process of automatization, parody, and renovation that brings about a change in literary form, which is then subjected to the same process, producing a constant cycle of stagnation and innovation. Tynyanov revises this model by introducing the idea of function: in this way, literature becomes something more than the sum of its forms and processes. The change in function of certain literary forms cannot wholly be explained by the operation of an unmotivated, internal process but must be understood in the context of the relationship between literary evolution and social change (ibid.,
- 62 Viereck, "De la tradición a las formas de la experiencia: Entrevista a Ricardo Piglia," 130; original emphasis.
- 63 Piglia, Respiración artificial, 129.
- 64 Ibid., 130.
- 65 Renzi argues that Borges "exaspera y lleva al límite, clausura por medio de la parodia la línea de la erudición cosmopolita y fraudulenta que define y domina gran parte de la literatura argentina del XIX" (exacerbates and takes to the limit, brings to a close by means of parody, that line of cosmopolitan and fraudulent erudition that defines and dominates a large proportion of Argentine literature in the nineteenth

- century). He also, according to Renzi, refunctions another, entirely different, literary inheritance from the nineteenth century the gauchesque by appropriating "las flexiones, los ritmos, el léxico de la lengua oral" (the inflections, rhythms, and lexicon of oral language) in the composition of stories such as "Hombre de la esquina rosada" (ibid., 129).
- 66 Piglia, La ciudad ausente, 160.
- 67 Echavarren, "La literariedad: Respiración artificial, de Ricardo Piglia," 1004.
- 68 Ibid., 997-98.
- 69 Ibid., 999, 1001.
- 70 Ibid., 997.
- 71 Piglia, Respiración artificial, 19.
- 72 Shklovsky, Theory of Prose, 190.
- 73 Berg, Poéticas en suspenso, 59.
- 74 Morello-Frosch, "The Opulent Facundo: Sarmiento and Modern Argentine Fiction," 347.
- 75 Piglia, Respiración artificial, 83.
- 76 Ibid., 199.
- 77 Ibid., 18-19.
- 78 Piglia, Crítica y ficción, 98-99.
- 79 See Shklovsky, Theory of Prose, 190.
- 80 Piglia, Crítica y ficción, 98.
- 81 Shklovsky, "The Resurrection of the Word," 46.
- 82 Piglia, Crítica y ficción, 43.
- Piglia, Tres propuestas para el próximo milenio (y cinco dificultades), 22.
- 84 Piglia, Respiración artificial, 46.
- 85 Ibid., 53.
- 86 Serres and Latour, Conversations on Science, Culture, and Time, 60.
- 87 Ibid., 57.
- 88 Serres, The Birth of Physics, 162.
- 89 Ibid., 163.
- 90 Serres and Latour, Conversations on Science, Culture, and Time, 57.

- 91 Piglia, Respiración artificial, 46.
- 92 Serres, The Birth of Physics, 162.
- 93 Serres and Latour, Conversations on Science, Culture, and Time, 58.
- 94 Serres, The Birth of Physics, 162.
- 95 Piglia, Respiración artificial, 60.
- 96 Ibid., 64.
- 97 Serres, The Birth of Physics, 164.
- 98 Piglia, Respiración artificial, 65.
- 99 Connor, "Topologies: Michel Serres and the Shapes of Thought."
- 100 Piglia, Respiración artificial, 51.
- 101 Connor, "Topologies: Michel Serres and the Shapes of Thought."
- 102 Piglia, Respiración artificial, 69.
- Tynyanov, "On Literary Evolution,"75.
- 104 Piglia, Crítica y ficción, 236–37.
- 105 Piglia, Respiración artificial, 30.
- 106 Ibid., 109.
- 107 Ibid., 160.
- 108 Piglia, "Rodolfo Walsh y el lugar de la verdad," 15.
- 109 Piglia, "Hoy es imposible en la Argentina hacer literatura desvinculada de la política. Reportaje de Ricardo Piglia a Rodolfo Walsh (marzo de 1970)," 62.
- 110 Ibid., 69.
- 111 Demaría, "Rodolfo Walsh, Ricardo Piglia, la tranquera de Macedonio y el difícil oficio de escribir," 138–40.
- 112 Piglia, Crítica y ficción, 130.
- 113 Ibid., 39.
- 114 Kellner, "Ernst Bloch, Utopia, and Ideology Critique," 82.
- 115 Bloch, The Principle of Hope, I, 154–55.
- 116 Ibid., I, 144.
- 117 Bronner, "Utopian Projections: In Memory of Ernst Bloch," 168.

2 | ALLEGORIES OF READING IN AN AGE OF IMMANENCE AND UNCERTAINTY

- 1 Nietzsche, *The Will to Power*, 272 (section 493).
- 2 Martínez, "Teoremas asesinos."
- 3 Martínez, Crímenes imperceptibles, 65-66.
- 4 Ibid., 42.
- 5 Ibid., 69.
- 6 Nietzsche, The Gay Science, 84.
- 7 Martínez, Acerca de Roderer, 80.
- 8 Martínez, La muerte lenta de Luciana B., 149.
- 9 Ibid., 168.
- 10 Martínez, Crímenes imperceptibles,
- 11 Moledo, "Crimen, cálculo y castigo" [interview with Guillermo Martínez].
- 12 Martínez, La fórmula de la inmortalidad, 213.
- 13 Wittgenstein, Philosophical Investigations, 74–77 (sections 185–90).
- 14 Ibid., 81 (section 201).
- 15 Cid, "Hacia una nueva novela policial argentina: Guillermo Martínez y Pablo De Santis."
- 16 James, The Figure in the Carpet, 33.
- 17 Ibid., 23.
- 18 Martínez, Crímenes imperceptibles, 230.
- 19 Martínez, Borges y la matemática, 92; see also Piglia, "Tesis sobre el cuento," 92–94.
- 20 Shklovsky, "The Mystery Novel: Dickens's Little Dorrit," 220–21.
- 21 Martínez, Borges y la matemática, 92.
- 22 See Borges's theorizations on the subject, published in his prologue to María Esther Vázquez, Los nombres de la muerte, cited in ibid., 61–62.

- 23 Martínez, Crímenes imperceptibles, 7.
- 24 Ibid., 32.
- 25 Ibid., 74.
- 26 Ibid., 134.
- 27 Borges, Prologue to María Esther Vázquez, Los nombres de la muerte, cit. Martínez, Borges y la matemática, 61.
- 28 Moscardi, "El mito del crimen perfecto."
- 29 Pynchon, The Crying of Lot 49, 125.
- 30 Cohen, ¡Realmente fantástico! y otros ensayos, 111, 152.
- 31 Ibid., 110-11.
- 32 Pynchon, Gravity's Rainbow, 434; cit. Cohen, ¡Realmente fantástico! y otros ensayos, 110.
- 33 Cohen, El testamento de O'Jaral, 93.
- 34 Ibid., 275.
- 35 Deleuze and Guattari, A Thousand Plateaus, 127.
- 36 Ibid., 126.
- 37 Cohen, El testamento de O'Jaral, 74.
- 38 Ibid., 76.
- 39 Ibid., 110.
- 40 Ibid., 95-96.
- 41 Ibid., 43.
- 42 Ibid., 210.
- 43 Ibid., 58.
- 44 Ibid., 18-19.
- 45 Ibid., 19.
- 46 Ibid., 157.
- 47 Ibid., 159.
- 48 Ibid., 156.
- 49 Ibid., 82.
- 50 Ibid., 160.
- 51 Black, "Probing a Post-Romantic Paleontology," 235.
- 52 Ibid., 248.
- 53 Alsen, Romantic Postmodernism in American Fiction, 174.

- 54 Ibid., 181.
- 55 Pynchon, Gravity's Rainbow, 590.
- 56 Cohen, El testamento de O'Jaral, 219.
- 57 Ibid., 275.
- 58 Ibid., 327.
- 59 Ibid., 162.
- 60 Ibid., 80.
- 61 Ibid., 26.
- 62 Ibid., 37.
- 63 Ibid., 268.
- 64 Deleuze and Guattari, A Thousand Plateaus, 5.
- 65 Piglia, Crítica y ficción, 14.
- 66 Piglia, La ciudad ausente, 126.
- 67 Ibid., 147.
- 68 Ibid., 126.
- 69 Ibid., 127.
- 70 Ibid., 132.
- 71 Ibid., 133.
- 72 Ibid., 132.
- 73 Piglia, El último lector, 16.
- 74 Stewart, On Longing, 172.
- 75 Ibid., 65.
- 76 Ibid., xi-xii.
- 77 Piglia, El último lector, 12.
- 78 Ibid., 13.
- 79 Ibid., 17.
- 80 Ibid., 13.
- 81 Borges, "El Aleph," 171.
- 82 Piglia, El último lector, 17.
- 83 Piglia, "Encuentro en Saint-Nazaire,"96.
- 84 Ibid., 98-99.
- 85 Ibid., 101.
- 86 Ibid., 87.
- 87 Ibid., 95-96.
- 88 Ibid., 95.
- 89 Ibid.
- 90 Ibid.

- 91 Prigogine, The End of Certainty, 189.
- 92 Ibid., 187-88.
- 93 Piglia, "Encuentro en Saint-Nazaire," 109.
- 94 Ibid., 137.
- 95 Ibid., 120-21.
- 96 Ibid., 143.
- 97 Ryle, The Concept of Mind, 18.
- 98 The passage to which Stevensen appears to make oblique reference is one in which Ryle describes the "official doctrine" that he will go on to challenge: "A person therefore lives through two collateral histories, one consisting of what happens in and to his body, the other consisting of what happens in and to his mind. The first is public, the second private." Ibid., 11.
- 99 Ibid., 15-16.
- 100 Ibid., 11-12.
- 101 Ibid., 172.
- 102 Ibid., 61.
- 103 Ibid.
- 104 Sontag, Against Interpretation and Other Essays, 5, 6–7.
- 105 Ibid., 14.
- 106 Piglia, "En otro país," 48.
- 107 Ibid., 49.
- 108 Ibid., 46.
- 109 See Piglia, La ciudad ausente, 99-100.
- 110 Piglia, "En otro país," 52.
- 111 Piglia, "Encuentro en Saint-Nazaire," 124.
- 112 Piglia, "En otro país," 41.
- 113 Piglia, "El fluir de la vida," 67–68.
- 114 Piglia, "En otro país," 30.
- 115 Ibid., 41.
- 116 Piglia, "El último cuento de Borges,"66.
- 117 Deleuze, "Literature and Life," 227; Deleuze and Guattari, What Is Philosophy?, 170–71.

- 118 Piglia, "El último cuento de Borges,"63.
- 119 Ibid., 64.
- 120 Ibid.
- 121 Ibid., 66.
- 122 Piglia, La ciudad ausente, 63.
- 123 Piglia, "En otro país," 54.
- 124 Piglia, La ciudad ausente, 154.
- 125 Piglia, El último lector, 153.
- 126 Piglia, "En otro país," 43.
- 127 Ibid., 44.
- 128 Piglia, "El fluir de la vida," 66.
- 129 Piglia, El último lector, 174.
- 130 Colebrook, Gilles Deleuze, 99.

3 | MATHEMATICS AND CREATIVITY

- 1 Schlegel, Dialogue on Poetry and Literary Aphorisms, 82.
- Nietzsche, Thus Spake Zarathustra,
 56.
- 3 Mann, Doctor Faustus, 459.
- 4 Martínez, "La irresistible elegancia de un teorema."
- 5 Martínez, La fórmula de la inmortalidad, 118.
- 6 Martínez, Borges y la matemática, 161-62.
- 7 Ibid., 161.
- 8 Martínez, Crímenes imperceptibles, 66.
- 9 Sokal and Bricmont, *Intellectual Impostures*, 130.
- 10 Tasić, Una lectura matemática del pensamiento posmoderno.
- 11 Reductio ad absurdum is a method of proof which assumes the negation of a proposition to be true and then shows that it leads to an absurdity, thereby demonstrating that it is false.
- 12 Martínez, Acerca de Roderer, 35.

- 13 Ibid., 78.
- 14 Ibid., 80-81.
- 15 Striedter, Literary Structure,
 Evolution, and Value, 64; Viktor
 Shklovsky, for example, considers
 that renewal often takes place
 through the recollection of a
 previously broken line, which lies
 dormant but then resurges to a
 dominant position. See Shklovsky,
 Theory of Prose, 189–90, and the
 more extensive discussion of this idea
 in relation to Respiración artificial in
 Chapter 1.
- 16 Martínez, La fórmula de la inmortalidad, 122–23.
- 17 Ibid., 116.
- 18 Nietzsche, *The Will to Power*, 279 (section 516).
- 19 Ibid., 280 (section 516).
- 20 Ibid., 3 (section 4).
- 21 Martínez, Acerca de Roderer, 92.
- 22 Nietzsche, Thus Spake Zarathustra, 22.
- 23 Ibid.
- 24 Nietzsche, The Will to Power, 23 (section 36).
- 25 Tomasi, "Nihilism and Creativity in the Philosophy of Nietzsche," 155.
- 26 Clemens, The Romanticism of Contemporary Theory, 83.
- 27 Kenevan, "Nietzsche and the Creative Consciousness." 388.
- 28 Nietzsche, Twilight of the Idols, 49.
- 29 Similarities between the two texts have been traced by several critics.

 See, for example, Sarmiento, "Acerca de Roderer de Guillermo Martínez: El mysterium iniquitatis en el fin de siglo literario," and for a more extended treatment of the novel's intertexts, Dapía, "Transgresiones, subjetividad y postmodernismo la búsqueda de una lógica no binaria en Acerca de Roderer de Guillermo Martínez."
- 30 Martínez, Borges y la matemática, 165.

- 31 Mann, The Genesis of a Novel, 130.
- 32 Ibid., 26.
- 33 Ibid., 124; for more details of the collaboration between Adorno and Mann, see Schmidt, "Mephistopheles in Hollywood: Adorno, Mann, and Schoenberg."
- 34 For a comparative analysis of the work of Mann and Mahler, see Michael Mann, "The Musical Symbolism in Thomas Mann's Novel Doctor Faustus."
- 35 Mann, The Genesis of a Novel, 55.
- 36 Ibid., 183.
- 37 Bergsten, Thomas Mann's Doctor Faustus, 173.
- 38 Mann, Doctor Faustus, 459.
- 39 Schmidt, "Mephistopheles in Hollywood: Adorno, Mann, and Schoenberg," 153.
- 40 Martínez, Borges y la matemática, 164.
- 41 Martínez, Acerca de Roderer, 57-58.
- 42 Mann, Doctor Faustus, 144.
- 43 Hutcheon, A Theory of Parody, 37.
- 44 Martínez, Acerca de Roderer, 56.
- 45 Hutcheon, A Theory of Parody, 38.
- 46 Bouveresse, Prodigios y vértigos de la analogía, 76.
- 47 Tasić, Mathematics and the Roots of Postmodern Thought, 4.
- 48 Ibid., 97.
- 49 Ibid., 58-59.
- 50 Ibid., 98.
- 51 Ibid., 85.
- 52 Cavaillès, "On Logic and the Theory of Science," 372, 409.
- 53 See Tasić, Mathematics and the Roots of Postmodern Thought, 90–97. Tasić is at pains to point out that there is a historical link between Cavaillès and Foucault via the historian of science, Georges Canguilhem, who

- was a great admirer of the first and an acknowledged inspiration for the second.
- 54 Foucault, The Order of Things, 364; cit. Tasić, Mathematics and the Roots of Postmodern Thought, 94.
- 55 Tasić, Mathematics and the Roots of Postmodern Thought, 5–6.
- 56 Erlich, Russian Formalism, 221.
- 57 Tasić, Mathematics and the Roots of Postmodern Thought, 6.
- 58 Sokal and Bricmont, Intellectual Impostures, 177.
- 59 Martínez, Borges y la matemática, 166.
- 60 Hutcheon, A Theory of Parody, 20.
- 61 Stevens, "An Ordinary Evening in New Haven," 466.
- 62 Cohen, "Un hombre amable," 191.
- 63 du Sautoy, The Music of the Primes: Why an Unsolved Problem in Mathematics Matters, 5.
- 64 Hardy, A Mathematician's Apology, 130.
- 65 To give an example, aliens first communicate with the Earth using prime numbers in Carl Sagan's novel Contact (1985).
- 66 For a lively account of the remarkable encounter between the Indian clerk Ramanujan and the two Cambridge mathematicians Hardy and Littlewood, see du Sautoy, The Music of the Primes: Why an Unsolved Problem in Mathematics Matters, 132–47.
- 67 Cohen, "Un hombre amable," 148.
- 68 Ibid.
- 69 Ibid., 183.
- 70 Ibid., 243.
- 71 Ibid., 204.
- 72 Changeux and Connes, Conversations on Mind, Matter, and Mathematics, 31.
- 73 Cohen, "Un hombre amable," 204.

- 74 Ibid., 289.
- 75 Ibid., 149.
- 76 Ibid., 290.
- 77 Ibid., 149.
- 78 Cohen, ¡Realmente fantástico! y otros ensayos, 148.
- 79 Cohen, "Un hombre amable," 305.
- 80 Schrödinger, What Is Life?, 137.
- 81 See, for example, Hayles, *The Cosmic Web*, 19.
- 82 Cohen, Buda, 73.
- 83 Schrödinger writes: "I myself also form part of this real material world around me." What Is Life?, 128.
- 84 Cohen, "Un hombre amable," 259.
- 85 Brochoud, "El hombre amable" [interview with Marcelo Cohen].
- 86 Stevens, Adagia.
- 87 LaGuardia, Advance on Chaos, 148.
- 88 Doggett, Stevens' Poetry of Thought, 33.
- 89 Stevens, "An Ordinary Evening in New Haven," 473.
- 90 Stevens, "July Mountain," 114-15.
- 91 Schlegel, Friedrich Schlegel's Lucinde and the Fragments, 175.
- 92 Stevens, "The Auroras of Autumn," 411.
- 93 Cohen, "Un hombre amable," 203.
- 94 Schlegel, Friedrich Schlegel's Lucinde and the Fragments, 268.
- 95 Ibid., 247.
- 96 Cohen, "Un hombre amable," 232.
- 97 Ibid., 306.
- 98 Ibid., 237.
- 99 Schlegel, Kritische Ausgabe, 18: 82; The English translation given here is cited from Behler, "The Theory of Irony in German Romanticism," 63.
- 100 Schlegel, Friedrich Schlegel's Lucinde and the Fragments, 176.
- 101 Ibid., 268.

- 102 Whiting, The Never-Resting Mind, 10-11.
- 103 Cohen, "Un hombre amable," 291.
- 104 Ibid., 216.
- 105 Schlegel, Friedrich Schlegel's Lucinde and the Fragments, 148.
- 106 Hegel, Aesthetics, 1: 66.
- 107 Furst, Fictions of Romantic Irony in European Narrative, 1760–1857, 301.
- 108 See, for example: Webster,
 "Establishing the "Truth' of the
 Matter: Confessional Reflexivity as
 Introspection and Avowal"; Lynch,
 "Against Reflexivity as an Academic
 Virtue and Source of Privileged
 Knowledge"; Latour, "The Politics of
 Explanation: An Alternative."
- 109 Latour, "The Politics of Explanation: An Alternative," 173.
- 110 Schlegel, Friedrich Schlegel's Lucinde and the Fragments, 167.
- 111 Stevens, "Adagia," 163.
- 112 Cohen, "Un hombre amable," 228–29.
- 113 Ibid., 257-58.
- 114 Saavedra, "Los espacios imaginarios del narrador" [interview with Marcelo Cohen], 83.
- 115 Cohen, "Un hombre amable," 256–57.
- 116 Ibid., 259.
- 117 Ibid., 297.
- 118 Whiting, The Never-Resting Mind, 11.

 The English translation is cited from Eichner, Friedrich Schlegel, 71; the original quotation is from Schlegel, Kritische Ausgabe, 2: 131.
- 119 Brochoud, "El hombre amable" [interview with Marcelo Cohen].
- 120 Cohen, "Un hombre amable," 178.
- 121 Brochoud, "El hombre amable" [interview with Marcelo Cohen].
- 122 LaGuardia, Advance on Chaos, 11.
- 123 Stevens, "On the Road Home," 204.

- 124 James, Pragmatism, 38-39.
- 125 Schlegel, Friedrich Schlegel's Lucinde and the Fragments, 175.
- 126 Cohen, "Un hombre amable," 296.
- 127 Ibid., 297.
- 128 Borges, "El Zahir," 115.
- 129 Sifrim, "Literatura a la hora de la siesta" [interview with Marcelo Cohen].
- 130 Deleuze and Parnet, Dialogues II, 39.
- 131 Plant, "The Virtual Complexity of Culture," 214.
- 132 Cohen, "Un hombre amable," 186.
- 133 Ibid., 187-88.
- 134 Ibid., 189.
- 135 Ibid.
- 136 Goldstein, "Emergence as a Construct," 49.
- 137 Cohen, "Un hombre amable," 190.
- 138 Stevens, "Landscape with Boat," 242.
- 139 Stevens, "On the Road Home," 204.
- 140 Cohen, ¡Realmente fantástico! y otros ensayos, 147.
- 141 See Sokal and Bricmont, Intellectual Impostures, and the Introduction to this book.
- 142 Cohen, ¡Realmente fantástico! y otros ensayos, 144.
- 143 Schlegel, Dialogue on Poetry and Literary Aphorisms, 89, 86.
- 144 Cohen, Un hombre amable, 211.
- 145 "Gurubel" is one of Cohen's many neologisms; it appears to refer to a kind of song to which it is usual to dance.
- 146 Cohen, "Un hombre amable," 211.
- 147 Ibid.
- 148 Ibid.
- 149 Ibid., 290.
- 150 Garber, "Sterne: Arabesques and Fictionality," 38.

- 151 Sifrim, "Literatura a la hora de la siesta" [interview with Marcelo Cohen].
- 152 The correct title of Stevens' poem (published in *Opus Posthumous*) is actually "A Mythology Reflects its Region." However, Cohen's transposition does not betray the sense of the poem, which explores the close interaction between creating self, religion, and physical environment.
- 153 Saavedra, "Los espacios imaginarios del narrador" [interview with Marcelo Cohen], 87.
- "El rock me acompaña desde siempre"
 [interview with Marcelo Cohen].

 The interview was conducted for
 Babasónicos, an Argentine rock band
 for whom Cohen has written lyrics
 and a short fictional biography, and
 was originally published on www.
 babasonicos.com.

4 | MACHINES, METAPHORS AND MULTIPLICITY: CREATIVITY BEYOND THE INDIVIDUAL

- 1 Porush, The Soft Machine, 19.
- See, for example, Stoicheff, "The Chaos of Metafiction";
 Paulson, "Literature, Complexity, Interdisciplinarity."
- 3 Deleuze and Guattari, Anti-Oedipus: Capitalism and Schizophrenia, 45.
- 4 Cohen, ¡Realmente fantástico! y otros ensayos, 144.
- 5 Deleuze and Guattari, A Thousand Plateaus, 4.
- 6 Piglia, La ciudad ausente, 156.
- 7 Brown, Cyborgs in Latin America, 29, 31.
- 8 The term "strange loop" was suggested by Douglas Hofstadter to describe a movement up or

- down through hierarchies which paradoxically leads back to the beginning. See Gödel, Escher, Bach: An Eternal Golden Braid; I Am a Strange Loop.
- 9 See Madrazo, "Entrevista a Ricardo Piglia," 104.
- 10 Piglia, La ciudad ausente, 147.
- 11 Ibid.
- 12 Alí, "La pasión escrituraria de Ricardo Piglia. La ciudad ausente: De la novela a la ópera," 4.
- 13 See Lacan's Seminar XIX, Class 6. The text is not commercially published, although a translation was carried out for the Escuela Freudiana de Buenos Aires, and the relevant extracts are quoted in Martínez and Piñeiro, Gödel (para todos), 121–23.
- 14 Ibid., 123.
- 15 Piglia, "La loca y el relato del crimen," 129.
- 16 Piglia, La ciudad ausente, 86.
- 17 Ibid., 106.
- 18 Ibid., 97.
- 19 Piglia argues that "ciertas corrientes actuales de la crítica buscan en la parodia, en la intertextualidad, justamente un desvío para desocializar la literatura, verla como un simple juego de textos que se autorrepresentan y se vinculan especularmente unos a otros. Sin embargo esa relación entre los textos que en apariencia es el punto máximo de autonomía de la literatura está determinada de un modo directo y específico por las relaciones sociales" (certain current trends in criticism find in parody, in intertextuality, a kind of deflection that desocializes literature, that sees it as a simple game of texts that point only to themselves, forging specular relationships with each other. However, this relationship between texts that apparently

- represents literature's maximum point of autonomy is determined, in a direct and specific manner, by social relations, Crítica y ficción, 75).
- 20 Hayles, How We Became Posthuman, 147.
- 21 Ibid., 155-56.
- 22 Livingston, Between Science and Literature, 70.
- 23 Jantsch, The Self-Organizing Universe, 10, 33.
- 24 Piglia, La ciudad ausente, 125, 103.
- 25 Ibid., 42.
- 26 Piglia, El último lector, 165.
- 27 Jameson, The Prison-House of Language: A Critical Account of Structuralism and Russian Formalism, 89.
- 28 Todorov, The Poetics of Prose, 66-70. This account of the relationship between narrative and characters in The Arabian Nights is given by Jameson: "in a series of striking articles Todorov shows that the very subject of such story-collections as the Thousand and One Nights must be seen as the act of storytelling itself, that the only constant of the psychology of the characters (or of the psychological presuppositions on which the work is founded) lies in the obsession with telling and listening to stories: what defines a character as a compositional unit is the fact of having a story to tell, and from the point of view of their ultimate destinies, 'narration equals life: the absence of narration, death" (The Prison-House of Language: A Critical Account of Structuralism and Russian Formalism, 199).
- 29 Piglia, El último lector, 169-70.
- 30 Piglia, Blanco nocturno, 239, 242.
- 31 See Propp, Morphology of the Folktale.
- 32 Piglia, Crítica y ficción, 15.

- 33 Calvino, "Cybernetics and Ghosts," 3–4.
- 34 Piglia, Blanco nocturno, 240.
- 35 Piglia, La ciudad ausente, 140.
- 36 Ibid., 41-42.
- 37 Ibid., 42.
- 38 Ibid., 71.
- 39 Calvino, The Castle of Crossed Destinies, 126.
- 40 Calvino, "Cybernetics and Ghosts," 8.
- 41 Ibid., 7.
- 42 Piglia, La ciudad ausente, 97–98; see "Encuentro en Saint-Nazaire," 81–82.
- 43 Piglia, La ciudad ausente, 100.
- 44 Ibid., 142.
- 45 Foucault, "Nietzsche, Genealogy, History," 81.
- 46 Tynyanov, "The Literary Fact," 31, 38 (original emphasis).
- 47 Porush, The Soft Machine, 40.
- 48 Berg, Poéticas en suspenso, 33.
- 49 Piglia, El último lector, 28.
- 50 Coleridge, Biographia Literaria, I: 167–68.
- 51 Young, Conjectures on Original Composition, 12.
- 52 Piglia, *Blanco nocturno*, 246, original emphasis.
- 53 Piglia, La ciudad ausente, 28.
- 54 Piglia, Blanco nocturno, 265.
- 55 Martínez and Piñeiro, Gödel (para todos), 33.
- 56 See Penrose, The Emperor's New Mind, 416–18; Shadows of the Mind, chapters 1–3.
- 57 Hofstadter, Gödel, Escher, Bach: An Eternal Golden Braid, 458.
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Notes 271

127

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CONCLUSION | LITERATURE AND SCIENCE, NEITHER ONE CULTURE NOR TWO

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Index

"biblioteca de Babel, La," 225

Acerca de Roderer, 17, 73-74, 115-33, 148, Blanco nocturno, 16, 162, 164, 172-74, 178-79, 180, 234 225, 228, 230 Blaustein, Eduardo, 14 "Adagia," 145 Bloch, Ernst, 65-66, 95, 113, 243 Adams, Henry, 186 Bohm, David, 25, 138 The Education of Henry Adams, 217 Borges, Jorge Luis, 13, 16-19, 33, 51, 71, Adorno, Theodor, 125, 266n33 80, 112, 177, 224-25, 227, 262n65 Aira, César, 14, 35-36, 226-27 "El Aleph," 101 El congreso de literatura, 14 "La biblioteca de Babel," 225 El juego de los mundos, 14 Los misterios de Rosario, 14 "El jardín de senderos que se bifurcan," Arabian Nights, The, 38, 171, 181, 270n28 "La loteria en Babilonia," 112-13, 225 "Aspectos de la vida de Enzatti," 197–202 "La muerte y la brújula," 72-73, 76, 79 Atrocity Exhibition, The, 188-91, 220 "Las ruinas circulares," 150-51, 182 "Auroras of Autumn, The," 140 "Tlön, Uqbar, Orbis Tertius," 9 autopoiesis, 16, 21, 25, 162-63, 168-70, 240, 242, 244 "El Zahir," 151 Bouveresse, Jacques, 7, 117, 129 Avelar, Idelber, 44-45, 181-82 Braidotti, Rosi, 229 Brecht, Bertold, 49, 63 B Bricmont, Jean, 5, 7, 117-18, 132 Brouwer, L. E. J., 121, 130-31 Ballard, J. G., 1, 19, 20, 159-60, 162, Brown, J. Andrew, 11-14, 18, 26, 164, 183, 185-86, 192, 195-96, 223 225-26, 238 The Atrocity Exhibition, 188–91, 220 Buddhism, 91, 138-39, 243 Crash, 220 Burroughs, William, 19-20, 111, 193 Barth, John, 9, 33 Byron, George Gordon, 120 Baudrillard, Jean, 3, 5, 7 Manfred, 33 Bergson, Henri, 236, 243

Calvino, Ítalo, 19, 173, 175, 179, 242 Cambaceres, Eugenio, 11 Casa de Ottro, 15, 160, 191–92 Cavaillès, Jean, 130–31, 266–67n53 chance, 5, 17, 27, 67, 69, 71–75, 83, 95,
Daedalus, 29, 36 Darwin, Charles, 12, 18, 175, 228 de Man, Paul, 228, 239–40 Debray, Régis, 6–7, 16 Deleuze, Gilles, 5, 7, 16, 23–24, 84, 95, 111, 113, 117, 130, 151–52, 161, 163–64, 180, 184, 191–93, 205–6, 224, 227–29, 231–37, 239–40, 243 Derrida, Jacques, 3, 130 Deserted Cities of the Heart, 223–24 dialectical evolution of thought, 5, 17, 21, 22, 27, 29, 35, 39, 41, 59, 81, 116, 118, 120–23, 126, 129, 143, 183, 228, 230–31, 243 Dick, Philip K., 20, 111, 113, 162, 185 Dionysian art. See under Nietzsche dissipative structures, 15, 162–63, 187, 195–96, 201–2, 220, 223

E	Russian Formalism, 2, 21, 22-23,		
Education of Henry Adams, The, 217 Eichenbaum, Boris, 62, 171, 183, 235 emergence, 15, 20, 22, 61, 90, 115, 144, 152–58, 161, 193–95, 213–14, 223, 231, 237, 240–41, 243. See complexity; see also self-organization. "Encuentro en Saint-Nazaire," 101–10, 175–76 En el siglo XXX, 12 "En otro país," 108–11, 113 entropy, 1, 5, 19–20, 25, 60, 82, 89–90, 162–63, 184–87, 189, 193–96, 202, 213–14, 219–21, 223–24	27–29, 37–45, 48–59, 62–63, 65, 79, 81, 115–16, 118, 120, 133, 170–71, 173, 176–77, 182–83, 227, 231, 234–36, 238–39, 243, 262n61 Foucault, Michel, 3, 131, 266n53 "What is an Author?", 181 fractals, 15, 19, 130 Frege, Gottlob, 130 Freud, Sigmund. See psychoanalysis Frye, Northrop, 28, 38–41 genetic recombination, 16, 18–19, 174–76, 78		
"Entropy" (Pynchon), 185–87, 189–91, 193 Equilibrio imposible, 225–26 evolution in biology, 5 18–19, 20, 164, 174–77, 228–29 of literature, 2, 13, 17, 20, 28, 37–45, 51–56, 62–63, 116, 120, 131–32, 164, 174–77, 183, 223, 227–28, 234–35, 238, 240, 262n61 Ezcurra, Eduardo, 12	G Giardinelli, Mempo: Equilibrio imposible, 225–26 Gödel, Kurt: theorems of incompleteness, 1, 6–7, 19, 69, 72, 95, 104, 117, 164, 168–69 Gorodischer, Angélica, 14 Gravity's Rainbow, 82, 91 Guattari, Félix. See Deleuze		
Facundo, 11, 64–65 Faust, 29, 32–33, 36, 115; see under Mann Fernández, Macedonio, 64–65, 164, 166–67, 170 field model (or concept), 13, 22, 237–38, 244 Figure in the Carpet, The, 77–78 fin de lo mismo, El, 162–63, 185–221 "fin de lo mismo, El" 193–96 Finnegans Wake, 97–98, 170 "fluir de la vida, El," 109–10 Formalism mathematical formalism, 97, 130–31,	H Hardy, G. H.: A Mathematician's Apology, 135 Hayles, N. Katherine, 5, 10, 13, 22, 26, 169, 225, 237–38, 244 Hegel, Georg Wilhelm Friedrich, 34, 41, 61–62, 143–44, 175, 230–31 Hilbert, David, 130 Holmberg, Eduardo, 12, 227 hombre amable, Un, 115–16, 134–60 Hutcheon, Linda, 128–29, 133		

Index 277

166, 179

"ilusión monarca, La," 192, 207–19, 234 incompleteness, theorems of. See Gödel information theory, 161, 195, 221 intuitionism, 130–31 "isla, La," 95–98

J

James, Henry, 19

The Lesson of the Master, 77

The Figure in the Carpet, 77–78

James, William, 150

Jameson, Fredric, 24, 171, 186

Jantsch, Eric, 25, 170

"jardín de senderos que se bifurcan, El," 26

Joyce, James, 109, 191

Finnegans Wake, 97–98, 170

Ulysses, 57, 170–71

juego de los mundos, El, 14

Jung, Carl. See psychoanalysis

Κ

Kafka, Franz, 48, 56, 226, 229, 233 Kristeva, Julia, 7, 16, 117

Ĺ

Lacan, Jacques, 7, 16, 167
Lacoue-Labarthe, Philippe, 10, 244
Latour, Bruno, 7, 144
Lem, Stanislaw: Solaris, 209–10
Lesson of the Master, The, 77
Livingston, Ira, 4, 10, 169
"loca y el relato del crimen, La," 167–68
"loteria en Babilonia, La," 112–13, 225
Lugones, Leopoldo (son), 52
Lugones, Leopoldo, 12, 17, 51–52, 170
"Lydia en el canal," 188–93
Lyotard, Jean-François, 3, 16, 117

M

Macedonio Fernández. See Fernández. Macedonio machines, 21, 212, 229 Deleuzean machines, 23-24, 161, 163-64, 180, 184, 235-36, 240 "ghost in the machine," 106-7 writing or storytelling machines in Piglia, 97, 112, 162-63, 162-84, 225, 238, 240 Mahler, Gustav, 125-26, 266n34 Manfred, 33 Mann, Thomas, 19, 117, 266n34 Doctor Faustus, 123–29 Mansilla, Lucio V., 11, 17 Mármol, José, 11, 17 Martínez, Guillermo, 1-2, 7, 10, 14, 16-26, 167, 179, 223-25, 227-28, 230-32, 234, 236-40, 242-44 Acerca de Roderer, 17, 73-74, 115-33, 148, 225, 228, 230 Crímenes imperceptibles, 17, 69-81, 117-18, 145, 230 "El cuento como sistema lógico," 79 La mujer del maestro, 27-42, 77, 81, 225, 228, 230 La muerte de Luciana B., 17, 74-75 Marxist approaches to literary criticism, 24, 66, 107, 206 Mathematician's Apology, A, 135 Mathematics of Postmodern Thought, The. See under postmodernism Maturana, Humberto, 169. See also autopoiesis memory implantation, 16, 70, 95, 110-12 Messiaen, Olivier, 157 Michelet, Jules: The Sea, 211-12, 219 misterios de Rosario, Los, 14 "mono ahorcado, El," 12 morphic resonance. See Sheldrake

mujer del maestro, La, 27-42, 77, 81, 225, "Encuentro en Saint-Nazaire," 101-10, 228, 230 175 - 76"En otro país," 108-11, 113 muerte como efecto secundario, La, 14 muerte de Luciana B., La, 17, 74-75 "El fluir de la vida," 109-10 "muerte y la brújula, La," 72–73, 76, 79 "La isla," 95-98 multiplicity, 163-64, 178, 187, 195, 200, "La loca y el relato del crimen," 167-68 203-10, 215-18, 220-21, 231, Prisión perpetua, 101-11, 175-76 235-36, 237, 241-44 Respiración artificial, 16, 22-23, 27-28, 42-67, 177, 183, 230-31, 239 "Tesis sobre el cuento," 79 N "El último cuento de Borges," 96 El último lector, 99-101, 113 Nancy, Jean-Luc, 10, 244 Plant, Sadie, 26, 152, 228, 240-41 New Wave of science fiction, 19, 184-86 Poincaré, Henri, 130 Newton, Isaac: Newtonian science, 2, 4-5, Porush, David, 10, 161, 164, 176, 183-84, 103-4, 140-238 223 Nietzsche, Friedrich, 70, 73-74, 116, postmodernism, 25, 32-33, 112, 138-39, 122-25, 162, 210-11, 213-16, 218, 144, 162, 205, 207, 210–11, 220 220 epistemological skepticism in, 1, 2, Dionysian art in, 213-15 34-36, 43, 69-70, 132, 142, 216, non-equilibrium systems. See under chaos 223, 237 non-linear systems. See under chaos exhaustion of artistic innovation in, 2, nondualism, 116, 138-39, 243 8-10, 21, 28-29, 34-36, 123-24, Novalis, 155 127-28, 132, 186, 237 Mathematics and the Roots of Postmodern 0 Thought, 118, 129-32 representation of science in, 3-7, 11, 21, "On the Road Home," 150 22, 24, 117-18, 129, 132, 237 "Ordinary Evening in New Haven, An," Romantic and/or Formalist legacies in, 133, 140 10, 23, 115, 121, 129, 135, 158, 227 ostranenie, 38, 48-50, 65 pragmatism, 150, 154 Oulipo group, 38 Prigogine, Ilya, 15, 20, 104, 187, 195, 223 - 25P prime numbers, 134-35, 267n65 Prisión perpetua, 101-11, 175-76 Perec, George, 38 Prometheus, 29-33, 36, 42, 228 Piglia, Ricardo, 1-2, 10, 14, 15-28, 69-70, Psychoanalysis 113-14, 161, 223-34, 236-44 Freudian, 84, 173

Index 279

Jungian, 172-74, 233

Blanco nocturno, 16, 162, 164, 172-74,

La ciudad ausente, 16, 52, 59, 67, 95–98, 109, 111–12, 162–71, 174–84, 225

178-79, 180, 234

psychoanalytical approaches to literary criticism, 23–24, 84, 107, 171, 206, 232–34

Pynchon, Thomas, 1, 19, 20, 81–82, 111–12, 162, 195, 201–2, 223

"Entropy," 185–87, 189–91, 193

The Crying of Lot 49, 94, 221

Gravity's Rainbow, 82, 91

Q

Queneau, Raymond, 38 Quiroga, Horacio, 12, 17

R

realismo inseguro (or incierto). See under Cohen recursion, 24, 32-33, 84, 108, 150-51, 165-66, 240. See also reflexivity reflexivity, 9-10, 18, 20-21, 24-26, 28, 32-33, 41, 45, 53, 65, 80, 82, 105-6, 115, 124, 135, 139, 144, 149, 150-51, 158, 161-62, 169, 179, 185, 202-3, 223-27, 229. See also recursion resonance, 24, 108, 162, 197-202, 207, 218-20, 233, 238 Respiración artificial, 16, 22-23, 27-28, 42-67, 177, 183, 230-31, 239 rhizomes (rhizomatic thought), 23-24, 159, 162, 188, 221, 235, 237 Romanticism, 22, 43, 45, 55, 116, 128-32, 134, 139, 148, 152, 155, 157, 159, 164, 178-79, 211, 231-32, 240, 244 in Argentina, 27, 47-48 and immanence, 91-94, 228-29, 243 irony in, 115, 118, 135, 140-45, 150-51, 158, 229

notions of creativity in, 8–10, 21–22, 27–32, 115, 119–23, 125, 162, 175, 181–82, 228 notions of science in, 2–4, 6, 18, 21–22, 24–25, 118, 140, 237 Roussel, Raymond, 38, 176 "ruinas circulares, Las," 150–51, 182 Russell, Bertrand, 104, 30 Ryle, Gilbert, 106–7, 265n98

S

Sarlo, Beatriz, 12-13 Sarmiento, Domingo Faustino, 11, 17, 227 Facundo, 11, 64-65 Schelling, Friedrich, 2-3, 237 Schlegel, Friedrich, 25, 30, 116, 140-45, 148, 150, 155, 243 Schoenberg, Arnold, 125–26 Schrödinger, Erwin, 20, 138-39, 187, 267n83 "Science Wars," 3-7, 117-18 Sea, The, 211-12, 219 self-organization, 5, 15, 17, 20, 25-26, 134, 152-58, 162, 164, 170, 195-96, 202, 226, 231, 240, 242-43. See also complexity and emergence serialism in music, 125-27, 157 Serres, Michel, 43, 59-61, 163, 184, 195, 210, 212-13, 215-17, 219, 237, 241 - 44Sheldrake, Rupert: morphic resonance, 199-200 Shelley, Peter Bysshe, 29-30, 42, 93 Shiner, Lewis, 19 Deserted Cities of the Heart, 223-24 Shklovsky, Viktor, 38, 42, 50, 54, 58, 62, 79, 131, 171, 183, 235-36, 243, 266n15 Shúa, Ana María, 14 Snow, C. P., 4, 6. See also two cultures Sokal, Alan, 3, 5, 7, 117-18, 132, 155

Solaris, 209–10
Spinoza, Baruch, 138, 151, 224–25, 243
Spregelburd, Rafael, 227
Sterling, Bruce, 19, 223
Stevens, Wallace, 133, 139–41, 145, 147, 150, 154, 159–60, 269n152
"Adagia," 145
"The Auroras of Autumn," 140
"On the Road Home," 150
"An Ordinary Evening in New Haven," 133, 140
Stewart, Susan, 99, 182
strange loops, 165, 269n8. See also tangled hierarchies

Т

Striedter, Jurij, 120

tangled hierarchies, 137, 162, 164-65, 179 Tarski, Alfred, 165-67 Tasić, Vladimir: The Mathematics of Postmodern Thought. See under postmodernism. "Tesis sobre el cuento," 79 testamento de O'Jaral, El, 83-94 thermodynamics. See entropy Thousand and One Nights, The. See The Arabian Nights Time Machine, The, 185 "Tlön, Uqbar, Orbis Tertius," 9 Todorov, Tzvetan, 171, 270n28 topology of time, 59-62 turbulence, 15, 59-60, 89, 195-96, 212. See also chaos

Turner, J. M. W., 212–13 two cultures, 4, 6, 26, 227, 237 Tynyanov, Yury, 41, 50–51, 54, 62–63, 176, 234–36, 243, 262n61

U

"último cuento de Borges, El," 96 último lector, El, 99–101, 113 Ulysses, 57, 170–71 uncertainty, Heisenberg's principle of, 4, 18, 69, 103

V

Varela, Francisco, 169. See also autopoiesis Viaje maravilloso del Señor Nic-Nac al Planeta Marte, 12 "Volubilidad." 202–6

W

Walsh, Rodolfo, 64
Wells, H. G., *The Time Machine*, 185
"What is an Author?", 181
Wiener, Norbert, 20, 186
Wittgenstein, Ludwig, 17, 44, 176, 130

X-Y-Z

"Yzur," 12 "Zahir, El," 151

Index 281

Creativity and Science joins the ongoing discussion about how literature engages with theories and practices of science and their impact on the wider cultural imaginary. English-language audiences know this engagement through works by authors ranging from C. P. Snow and Aldous Huxley to J. G. Ballard and Thomas Pynchon: works that have often fed a dystopian or apocalyptic vision of the world, in which rational enterprise and artistic innovation have come to an end, and society is set on a path of inexorable decline.

In Creativity and Science, Joanna Page brings to us an exploration of Argentine fiction that challenges such visions. Examining the works of Marcelo Cohen, Guillermo Martínez, and Ricardo Piglia, Page argues that these writers draw on models and theories from mathematics and science and put them to a very different use than their English-language counterparts: to defend intellectual activity and to testify to the endless capacity of literature to thrive through self-renewal, reinvention, and the creation of new forms. The syntheses these writers imagine between literature and science – and that they allow us to imagine in turn, suggests Page – are more productive and nuanced than many of those that have shaped recent debates on literature, science, and technology within the European and North American academies. This is the first book-length study in English of three key authors in contemporary Argentine literature. It also makes an important contribution to theories of newness and creativity, tracing unexpected relationships between thinkers such as Nietzsche. Deleuze, and the Russian Formalists.

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