

## INTRODUCTION

This collection of essays on “Literature and Science” responds to the growing stream of critical theories and cultural studies related with modern science and technology, including chaos theory, ecocriticism, and cybercriticism. Since contemporary society relies mostly on scientific knowledge as means to infer truth, the interfaces of science with other branches of human knowledge have considerably expanded. Coincidentally, the early years of the twenty-first century are also inviting a reflective glance upon the surrounding materiality of our existence, as well as upon the challenges of our posthuman future,<sup>1</sup> largely dominated by physics, biology, and information technology. Besides, power is often predicated about both literature and science, though each serving different agents and acting different modes of performance.

In order to limit the scope of our subject, it was reasonable from the initial planning to leave out the most obvious corpus of texts: science-fiction, not only because its solid critical tradition demands a particular approach altogether, but also because it has been so challenging and prolific that its presence was likely to be pervasive throughout the collection, as indeed it is. Other subjects of interest—such as the language and rhetoric of science, the history and philosophy of science, the ethics of science, etc.—were also discarded for the benefit of specialization. Thus, the main points of departure aimed at elucidating current subjects in the humanities-sciences polarity, their share in the human imagination and their mutual influence. A topic of particular interest to be considered was the impact of scientific knowledge and technology upon the practice of creative literature written in English. For example, the emergence of new kinds of writing elicited by new technologies or scientific evidence—or the genuine depiction of scientific knowledge as an integral element of the literary text—constituted some of the most immediate subjects to be investigated. It does not mean that pre-eminence was given to experience over imagination, but rather that alert writers are believed to be best equipped to filter scientific knowledge. They are generally more capable to render for the less visionary majority the innovative redefinitions of nature which learned knowledge has continuously been affirming, assessing and reformulating to the point of blurring the traditional limits between science, philosophy and theology.

Given the progressive decay of the Humanities in Western educational curricula and public esteem, it might be admitted that Science—or technology, its more visible manifestation—has become the successful contestant in the no-longer

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<sup>1</sup> See Francis FUKUYAMA, *Our Posthuman Future* (London: Profile, 2003).

tenable “The-Two-Cultures” debate. The titles of some books published over the last two decades on this subject (*Beyond the Two Cultures*, *The Third Culture*, *Bridging the Two Cultures*)<sup>2</sup> implicitly acknowledged this fact in their attempts at examining interface issues, such as language, discourse, nature, the human brain, and philosophical frameworks. Other scholars have applied a different methodology. For example, A. Zee in his stimulating *Fearful Symmetry*<sup>3</sup> argues that scientific research in physics is governed by the aesthetic ideals of simplicity, symmetry and proportion—as if they were the universal principles of guidance for the human intellect—despite nature usually operates otherwise. This underlying classical design in modern science procedure inevitably evokes Matthew Arnold’s enthusiastic defence of the *belles lettres* in his Rede Lecture (“Literature and Science”), when he concluded that “yet the majority of men will always require humane letters; and so much the more, as they have the more and the greater results of science to relate to the need in man for conduct, and to the need in him for beauty.”<sup>4</sup> But things turned out differently. Indeed, the fast development of science and technology throughout the twentieth century has brought humanities to a dim position in Western universities.

However, the relation of science and culture works out in a fascinating symbiosis—one scrutinizing the mysterious other, as this monograph will demonstrate—which is predictable far from weakening. Biotechnology, cybernetics, nanotechnology, and other areas of contemporary modern science have prompted both a reconsideration of the different branches of theory (including gender and poststructuralism) and a reassessment of their epistemological parameters, such as Haraway’s notion of *Cyborg*, that is, “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (149).<sup>5</sup> From a theoretical point of view—and avoiding anthropological appropriations—cyborg identity poses a serious challenge to the Romantic identity and its cult of individuality, therefore affecting the whole Romantic aesthetic project—more or less prevalent up to our postmodernist and multicultural times, within which, paradoxically, the cyborg identity is inscribed.

Posthumanism is becoming an umbrella term for a number of theories—Haraway’s “cyborgs,” Michel Serres’ “quasi-objects,” Bruno Latour’s “modern

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<sup>2</sup> Full references of these titles: Joseph W. SLADE & Judith YAROSS LEE eds. *Beyond the Two Cultures: Essays on Science, Technology, and Literature* (Ames: Iowa State UP, 1990); Elinor S. SHAFFER, ed. *The Third Culture: Literature and Science* (Berlin: Walter de Gruyter, 1998); David L. WILSON & Zack BOWEN, *Science and Literature: Bridging the Two Cultures* (Gainesville: UP of Florida, 2001).

<sup>3</sup> A. ZEE, *Fearful Symmetry: The Search for Beauty in Modern Physics* (Princeton: Princeton UP, 1999 [1986]).

<sup>4</sup> Matthew ARNOLD, “Literature and Science,” *The Portable Matthew Arnold*, ed. Lionel Trilling (New York: Viking, 1949) 429.

<sup>5</sup> Donna J. HARAWAY, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991).

Constitution,” among others— which reconsider the status of the human being with respect to nature and culture, or study the transformation of the human body/identity into a new scientifically-improved episteme. The two opening articles in this present collection investigate this subject. Rossini’s essay introduces a number of posthumanist concerns as she explores the concepts of “science/fiction” and “imagineering,” whereas Clarke’s inspiring contribution concentrates on Bruno Latour’s writings —especially related with metamorphic dynamics and semiotic mediation— for a reading of Wells’ *The Island of Dr Moreau*. At the other extreme of this posthuman overture, the epilogue essay by Vanden Heuvel focuses on the fruitful partnership between literature and science by explaining the aesthetic renewal in contemporary dramatic art as a result of introducing technology and science as theatrical subject.

Between them, the wide variety of approaches to our subject tackled by the contributors demonstrates not only the relevance of any given scientific perspective for generating new modes of creative literature, but also the influence on the development of the cultural and aesthetic dynamics. Therefore the articles have been organized following a (flexible) chronological order of the literary period under focus, starting with the seventeenth-century English literature onwards. Pollard examines the curative effects of revenge and the use of poisons in the drama of revenge, as a result of paradigm shifts in early modern medicine. My own contribution focuses on the literary novelty of Godwin’s precocious space voyage. Much related with it, Trofimova deals with Wilkins’ and Behn’s promoting the “new science” in Restoration England.

The next two articles study contemporary literature, but bring into discussion past scientific premises. Klähn shows the persistence in postmodernist fiction of quantified world-making characteristic of early modern physics. The lack of a specific essay on Romantic science is partially fulfilled by Kuipers’ discussion on the influence of Soviet neurologist Luria’s case studies in the twentieth-century rise of “creative nonfiction” or “literary nonfiction.”

Klein examines the scientific discourse underlying the emergence of the detective fiction with particular consideration to works by Poe and Doyle.

The next three articles concentrate on contemporary fiction. Hidalgo investigates central issues to neuroscience —perception, consciousness or memory— particularly in A.S. Byatt’s *Babel Tower* and *A Whistling Woman*. Arias analyses the gendered and psychological perspectives of the conflict between science and spiritualism in Victorian times as portrayed by Roberts’ *In the Red Kitchen*. And Wallhead studies the interplay of science and humanity in the fiction of Alan Lightman, the author of *Einstein’s Dreams*.

I wish once more to express my gratitude to the contributors for putting life into this monograph and to the *RCEI* board for bringing it into life.

Tomás MONTERREY