“Weird and fantastic realism”: Science and Stories in the Work of Grant Allen

Beth Mills

Abstract

Grant Allen (1848-1899) was a well-known populariser of natural history who was widely recognised for his extensive knowledge of science and his ability to refashion complex ideas for general audiences. But his status as a popular writer, coupled with a lack of formal training, placed him at the margins of professional science and impeded his serious scientific ambitions. Although Allen tended to portray fiction-writing as an economic necessity, both contemporary and recent critics have noted stylistic innovations that place him within germinal popular genres of the *fin de siècle*. This paper aims to show that Allen’s contributions to late-Victorian popular literature derive in part from his negotiation of fiction and non-fiction genres. Focusing particularly on his experiments with the short story, it considers how and to what extent he distinguished scientific from literary writing, while revealing his views on plausibility in fiction to be more complex than is typically recognised. Little-studied reviews of Allen’s popular fiction suggest the wider contemporary impact of his experimentations. That critics recognised his style as unconventional endorses a reappraisal of his place within developments in late-Victorian popular literature.

Keywords

Science fiction; scientific romance; Grant Allen; short story; *fin de siècle*; H. G. Wells; Andrew Lang; Richard Jefferies; supernatural; science and imagination; John Tyndall; generic hybridity

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“Weird and fantastic realism”:

Science and Stories in the Work of Grant Allen

Beth Mills

H. G. Wells is generally considered the paradigmatic science fiction writer of the late nineteenth and early twentieth centuries. But in the 1890s, Wells admitted in a letter to his fellow author, Grant Allen, that “this field of scientific romance with a philosophical element which I am trying to cultivate belongs properly to you” (c. 1895).¹ A champion of scientific naturalism, and particularly of Herbert Spencer’s evolutionary philosophy, Allen was a well-known populariser of natural history who was widely recognised for his extensive knowledge of science and his ability to refashion complex ideas for general audiences.² But his occupation as a popular writer, coupled with a lack of formal training, placed him at the margins of professional science and impeded his serious scientific ambitions. Meanwhile, shifts in the literary market during the 1880s and 1890s disadvantaged scientific writers, while popular fiction remained lucrative (Morton 2005). By the 1890s, Allen, a writer by trade, had become a vocal critic of the literary profession. “For ten years,” he lamented in 1887, he had “been fighting a hard battle against poverty, in writing scientific works,” and was now “compelled to take to penny-a-lining for a livelihood at vulgar stories” (Allen 1887b: 13). During his career from the 1870s to his death in 1899, he composed several novels and dozens of short stories, best-known among which is the notorious New Woman novel, *The Woman Who Did* (1895), a text which foregrounds the biological essentialism, eugenicism, and opposition to marriage that underpinned Allen’s interventions in the Woman Question, and for which he has received much scholarly attention.³

¹ Cited with the permission of The Literary Executors of the Estate of H G Wells.

² Opinion on Allen’s ideas varied widely among the scientific community. For instance, when, in an article on botany in 1882, he contradicted scientific consensus by proposing “that petals are derived from flattened stamens,” Charles Darwin called the idea “striking and ... apparently valid” (Allen 1882a: 21; qtd. in Allen 1882b: v). Later that year, however, the botanist Frederick Orpen Bower charged Allen with perpetuating misinformation by committing “blunders of such magnitude” in an essay series for *Nature* (Bower 1883: 552).

³ On the New Woman in Allen’s fiction, see, for example, Kestner (2003; [2003] 2016), Willis (2005), Cameron (2008), and Wänggren (2017). See Richardson (2003) for discussion of Allen in the context of eugenics and late nineteenth-century feminisms.

With the exception of his moralising, so-called “Hill-top Novels”, *The Woman Who Did* and *The British Barbarians* (1895), Allen tended to present fiction writing as an economic necessity, claiming, in 1893, to have “drifted into fiction by the sheerest accident” (Allen 1895a: xi; 1893: 159). Introducing a 2005 edited collection on Allen, William Greenslade and Terence Rodgers note that the “expanding commercial environment” enabled Allen “to widen and experiment with the boundaries of popular literature, both in non-fiction and fiction” (2005: 7). These experiments unsettled boundaries not only within, but between, fiction and non-fiction. That “the traffic” between Victorian literature and science was “two-way” is widely recognised in scholarship, owing to the seminal work of Gillian Beer, George Levine, and Sally Shuttleworth in the 1980s, and to the diverse range of subsequent studies (Beer 2009: 5). Analyses of Allen’s fiction have variously contextualised his scientific themes within the dominant – often intersecting – scientific and socio-political discourses of the day.⁴ Although critics from the nineteenth century onwards have seldom deemed his fiction of inherent literary value, early reviewers acknowledged his unconventional style, while recent opinion has placed him at the vanguard of emerging sub-genres of popular literature, including science fiction, detective fiction, “Wellsian speculative fiction,” and the “fictionalized psychical case study” (Stableford 2003: 25; Johnson 2008: 3-4; Morton 2005; Pittard 2011; Kestner 2003; Kestner [2003] 2016). The role of science is an important factor here. As Greenslade and Rodgers state, Allen’s “incorporation of contemporary scientific conceits and preoccupations ... made a distinctive contribution to the *fin-de-siècle* short story, prefiguring late twentieth and twenty-first century genres” (2005: 5; Willis 2005). Some authors, such as Will Abberley (2018; 2020) and David Cowie (2000), argue persuasively that Allen’s popular fiction served his scientific project in specific ways, by, for example, encouraging readers to improve their powers of perception and discernment, and assisting the larger enterprise of scientific naturalism by bringing science to wider audiences.

In this paper, I aim to show that Allen’s contributions to Victorian popular literature derive in part from his negotiation of fiction and non-fiction genres. My use of the term “genre” draws on Will Tattersdill’s definition in his study on the *fin-de-siècle* periodical press, which encompasses the familiar sense of “types of popular writing (eg. thriller/adventure/SF)” as well as “types of knowledge or inquiry (eg. literature/science)” (2016: 2). Tattersdill frames the relation between literature and science – regarded as two “generic voices” – within the periodical in terms of “material entanglement” (2016: 2). Emphasising the constructed nature of knowledge taxonomies, and, therefore, of the so-called “Two Culture divide,” he argues that literary genres, disciplines, and the “barriers *between* disciplines” are “constantly-shifting entities, born out of culture rather than imposed on it” (2016: 3, original emphasis). Tattersdill focuses on the new late-Victorian illustrated monthlies, whose unique format, with eclectic items appearing cheek by jowl, exemplify this historical contingency; the magazines created the conditions for what would become “science fiction,” by destabilising perceived distinctions between genres.

Drawing an analogy between types of texts and types of knowledge productively disrupts hierarchies, opening up critical space to consider the value of popular writing to literary and intellectual history. Philip Erchinger interrogates concepts of genre by approaching Victorian literary and scientific texts as “ways of knowing” that share both the “common

⁴ Extended analyses of Allen include Abberley (2018; 2020), Morton (2005), Melchiori (2000), Ferguson (2006), Greenslade and Rodgers, eds. (2005), Lightman (2007), Stiles (2011), Pittard (2011), and Cowie (2000). On the relationship of Allen’s fiction to specific scientific subjects, see, for example, Abberley (2018; 2020), Ferguson (2006), Parrinder (2005), Randolph (2005), Slaugh-Sanford (2012), and Stiles (2011).

medium” of writing and the effect of “translating modes of personal experience into forms of generally readable text” (2018: 6, 71, 6, original emphasis). This translation occurs in what he calls “the experimental field,” or “the scene of emergent meaning” (2018: 1). At the present time, literature and science are typically viewed as separate spheres of inquiry, reinforced not least by governmental funding priorities. But the convergence of the literary with the scientific in Victorian writings forces us to recognise that these categories are constructions. Doing so enables us to interrogate how we define these terms in relation to each other as well as to knowledge. Conceptualising stories by a scientific writer as “ways of knowing” grants these texts a role in constructing, in addition to circulating, science among wider Victorian readerships. This perspective also brings attention to the “hybrid, and overtly pluralist, intertextual format of the periodical,” which gave writers and editors “opportunities for conceptual and linguistic interchange,” while allowing for interconnected readings (Cantor, Dawson, Noakes, Shuttleworth, and Topham [2004] 2016: xviii; Dawson, Noakes, and Topham 2004: 2).

I start by examining Allen’s views on the possibilities for stories to participate in scientific discourse, foregrounding his experimentation with content and form, with science and fiction, and with essay and story. I consider how and to what extent he distinguished scientific from literary forms of writing, in particular the short story, drawing on a range of works in which he alludes to generic hybridity.⁵ His first short story captures the sense of an “experimental field” in which meaning comes into existence, an impression of hybridity reinforced by early comments on his style (Erchinger 2018: 1). I both build on and problematise Cowie’s conclusions that, for Allen, science provided an organising frame for narrative while popular fiction supported “the education of the public” by making science “accessible,” “palatable and digestible” (2000: 158). Allen credited science as a resource in his story-writing, and presented fiction as a way to not only disseminate, but contribute to, scientific knowledge at a time when the boundaries of professional science were coming into focus. But these interchanges were not without problems. As I discuss in the second section, Allen’s case highlights questions about whether fiction writers with scientific understanding were expected to create plausible narratives. While eminent men of science were keen for such authors to represent science accurately in order to avoid spreading misinformation, Allen took a more flexible approach. I reveal that his views on this issue were more complex than is typically recognised, through analyses of his response to works by Andrew Lang and Richard Jeffries. Finally, I explore little-studied reviews of Allen’s popular fiction to suggest the wider contemporary impact of his experimentations. That critics recognised his style as unconventional endorses a reappraisal of his place within developments in late-Victorian popular literature.

The “flowery fields of pure fiction”

In *Grant Allen: A Memoir* (1900), the popular anthropologist, Edward Clodd, said of his late friend that “fiction was, with him, a provision of means for higher ends” (Clodd 1900: 100). However, embarking upon “the downward path which leads to fiction”, as Allen put it, did not mean renouncing science but a refashioning of the ways in which ideas might be communicated (Allen 1899: vi). Indeed, his account of his entry into story-writing complicates the assumption

⁵ Overall, Allen’s short stories are less widely known than his novels and have tended to receive less scholarly attention, with “The Reverend John Creedy” being perhaps the most notable exception. However, a selection of these works has become more widely accessible through Peter Morton’s 2019 edited anthology, *The Rare or Unread Stories of Grant Allen (1848-1899)*, which also supplies contextual information for each text.

that such work always undermined his serious interests. His first story, “Our Scientific Observations on a Ghost,” was published in the July 1878 number of the *Belgravia*, under the pseudonym “J. Arbuthnot Wilson.” It parodied the ghost story almost a decade before this trend became prevalent in the 1880s (Freeman 2012). Jim and Harry, two Oxford medical students with a keen interest in comparative physiology and anatomy, encounter a seventeenth-century aristocratic spectre named Algernon Egerton, who materialises to refute Harry’s assertion that “a man might conceivably see a phantom, but could not possibly know that he saw a ghost” (Allen 1878: 45). Jim and Harry perform a series of experiments to determine whether Egerton has any material substance, documenting their methodology and successive results. The results are ambiguous: as Jim reflects, “even after the clear evidence which we obtained of its immaterial nature, we yet remain entirely in the dark as to its objective reality” (Allen 1878: 58). Their report, submitted in the hope of elite acclaim, is rebuffed by the Royal Society and the Anthropological Institute, and dismissed as a “sorry joke” by the Chemical Society (Allen 1878: 58). In lieu of professional validation, the students beseech the “general reading public at large,” who “invariably peruse the pages of ‘BELGRAVIA,’” to recognise their work as “a valuable contribution to a great scientific question” (Allen 1878: 58).

Allen recalled the conception of this story in an 1893 piece for the *Idler*, entitled “My First Book”:

One day it happened that I wanted to write a scientific article on the impossibility of knowing one had seen a ghost, even if one saw one. For convenience sake, and to make the moral clearer, I threw the argument into narrative form, but without the slightest intention of writing a story.
(1893: 159)

He well knew that adapting material for different audiences was a necessary skill in the literary trade. Editors were sometimes more receptive to fiction than articles, as demonstrated by an incident shortly after James Payn had replaced Leslie Stephen as editor of the *Cornhill Magazine* in 1883 (Weyman 1910). In the Introduction to *Twelve Tales* (1899), Allen claimed to have received two letters from Payn on the same day: one addressed to himself, rejecting an article, and another, delivered to the publishers Chatto and Windus, requesting more stories from “J. Arbuthnot Wilson” (Allen 1899). But, he insisted, it was not until Chatto asked if he “could supply *Belgravia* with ‘another story’” that he regarded “Our Scientific Observations” as fiction (1899: vi). He had “ventured for the better development of my subject to throw the argument into the form of a narrative,” but “did not regard this narrative as a story: I looked upon it merely as a convenient method of displaying a scientific truth” (1899: vi). Allen’s use of the term “narrative” seems to situate “Our Scientific Observations” midway between article and story, an ambivalence paralleled by Jim’s reference to their report as a “simple and straightforward narrative” (Allen 1878: 58). By comparison, in an 1889 interview with the *Pall Mall Gazette*, he described having written “an article once for *Belgravia* about a ghost,” which he had thrown “for convenience sake into the form of a story though it was really scientific” (“‘Colin Clout’ at Home” 1899: 2). Exemplifying what Tattersdill calls “the multiple historical contingencies of genre,” these comments suggest the receptiveness of specifically popular fiction to the kind of experimentation that Allen performed (2016: 25). Unlike the “Hill-top Novels,” the stories were intended for publication in a dialogic space that enabled the cross-pollination of ideas, themes, and structures, as Tattersdill and others have shown (Allen 1895a: xi). Contributors had far from unlimited freedom, of course, and yet the periodical format lent itself to generic admixture – or, more to the point, it highlighted an already-existent fluidity. Its intertextuality accentuated the qualities of the short story, a form recognised as being “so flexible and susceptible to so much variety that its possibilities seem almost endless” (Cuddon [1998] 1999: 817).

The imprecision surrounding “Our Scientific Observations” evokes the “two-way” flow of traffic between Victorian science and literature that Gillian Beer famously describes in *Darwin’s Plots* (2009: 5), while raising questions about the possibilities that different forms of text offer. Allen implied that a style closer to fiction than to a conventional scientific paper might provide the most effective way to communicate an argument. The array of terms that he applied to his story bespeaks the text’s typological indeterminacy, even if one doubts his claim that he did not regard it as fiction. Kathleen Slaugh-Sanford, in her doctoral thesis, contends that the most significant way in which “Allen merged the fields of science and literature” was his practice of “blending these two genres together” (2012: 59). She notes his use of both fictional and non-fictional forms to popularise Francis Galton’s notion of hereditary genius, including through short stories that resembled “fictional biographies” (2012: 64). Discerning an affinity between fiction and evidence, Slaugh-Sanford usefully demonstrates how Allen’s work broadened the purview of scientific discourse. As Cowie contends in his thesis on Allen, this hybridity signals a compromise between market demand and Allen’s commitment to scientific naturalism. One of Cowie’s key points is that Allen structured his fiction according to his understanding of natural law and, in particular, to Spencerian psychological and sociological ideas. Presenting the short stories as quasi-thought pieces, Cowie rightly observes that “fiction offered [Allen] a way of thinking through impossible experiments” (2000: 143). However, the capacity of stories to contribute to science becomes somewhat subsumed in Cowie’s analysis by their value as “vehicles” that transported “messages about science ... to a wider public” (2000: 139-40). This conflation to an extent parallels Allen’s own remarks on the subject; he was inconsistent on the precise way in which fiction related to science, variously presenting it as a passive vessel of, and a shaping influence on, knowledge, as I discuss further in the next section.

The question also remains about whether he associated his stories more closely with science or fiction. Charlotte Sleigh has recently argued that the nineteenth-century novel functioned as a space for the testing of scientific ideas, describing the naturalist novel – intended to present “an explicitly ‘scientific’ way of accounting for the events that unfold” – as “a text-lab in which life-like scenarios would play out just as they would in reality” (Sleigh 2017: 80). She proposes that, ironically, it is science fiction that best approximates naturalism within British literature, particularly that of writers conversant in science such as Grant Allen and, especially, H. G. Wells. While “Our Scientific Observations” can hardly be compared to the rich naturalism of Émile Zola, Allen’s use of the terms “article,” “argument,” “story,” and “narrative” suggest elastic parameters and coextensive formal features. It questions, if not quite collapses, difference. This creative melding of genres speaks to the concept of “transaction,” as theorised by Roger Luckhurst and Josephine McDonagh, which encompasses not only “formal transfer and fair exchange, but also passages of transgression or transference, in which precisely what material gets passed over, and how are much more uncertain” (2002: 6). Allen’s critical decision to “thr[o]w the argument into narrative form” (Allen 1893: 159) necessarily entailed some elements being “passed over,” creating a palimpsestic effect in which a fictional layer appears to have been superimposed onto a scientific paper (Luckhurst and McDonagh 2002: 6). We can discern the non-fiction prototype in Harry’s disquisitions and in the systematic recording of the investigation, which carries the reader comfortably from a proposition, through an orderly sequence of tests, to a statement of results. In a particularly amusing moment of “transference,” to borrow Luckhurst and McDonagh’s term (2002: 6), the narration is interrupted by a table of results, which shows the “surrounding air” to be composed of “atmospheric air,” “aqueous vapour” and “carbonic acid,” as well as “tobacco smoke” and “volatile alcohol” – vestiges of the evening’s leisure (Allen 1878: 52). That a hybrid “narrative form,” as Allen termed it (1893: 159), represented

the clearest mode of expressing an argument evokes Beer's observation of "the degree to which narrative and argument share methods" (Beer 2009: xxv). Allen presents his case in a disarmingly cogent fashion, following the linear chronology of the experiment and presenting fictional data as empirical evidence obtained through the scientific method.

Allen's first collection, *Strange Stories* (1884), revealed his authorship of "Our Scientific Observations" and fifteen other tales that had originally been attributed to "J. Arbuthnot Wilson."⁶ As he recounts in the Preface, writing as "Wilson" had disguised his trepidatious departure from his "proper sphere into the flowery fields of pure fiction," (1884: iii) and had thus served to safeguard "such little scientific reputation as I possessed" (Allen 1899: vi). The warm critical reception, he claimed, had encouraged him to identify publicly as a fiction-writer. *Strange Stories* therefore symbolised a conflation of two authorial personae: Allen, writer of science, and Wilson, writer of fiction. For Peter Morton, the separation of the "serious essayist/scientist" from the "more frivolous journalist and story-writer" indicates Allen's desire "to half disown what he is doing" (Morton 2005: 48). The "Wilson" guise, Morton contends, is the "first sign of the bifurcation that became the dominant, troubling note of his career" (2005: 8). It is not hard to find evidence for this impression – Allen's appeal to his friends "never, under whatsoever temptation, to read one of his 'commercial' novels" conveys at least embarrassment, if not shame (Le Gallienne 1899: 1018).

Nonetheless, the Preface is revealing with regard to Allen's story- and science-writing, which he conceptualises as proximal spaces requiring deft, considered navigation. He cites his scientific background to legitimise his right to "unclaimed territory" within the field of fiction, which "lies so temptingly close beside my own small original freehold" (Allen 1884: v). Connecting these habitats is the "narrow link" by which he describes the "scientific or quasi-scientific idea" treated in most of the "mere short sensational tales" (Allen 1884: v, iv).⁷ Two of the stories are extensions of his "trade [as] a psychologist and scientific journeyman": "The Reverend John Creedy" is "a study from within," which draws on "modern anthropological papers and reports" to depict racist notions of atavism, or "a relapse into barbarism" in Allen's words (Allen 1884: iii, iv). Meanwhile, "The Curate of Churnside" is a "psychical analysis of a temperament" that combines intellectual and aesthetic refinement with moral bankruptcy (Allen 1884: iv).⁸ By emphasising a correspondence between his stories and what he calls his "more habitual sphere of work," Allen reconfigures his origins in science from a potential hindrance into not only an advantage, but the justification for his story-writing (1884: v). Classifying "John Creedy" as a study presents such imaginative exercises as sources of psychological insight that are otherwise unobtainable, or which are, to quote Cowie, "beyond experimentation" (2000: 159). The weight thus implicated in popular fiction, then, qualifies the "darker psychological waters" that Morton infers from Allen's use of a pseudonym (2005: 48). The short story form shares common ground with heuristic modes of scientific investigation, owing to what Paul Delaney and Adrian Hunter describe as its "equivocal or unfixed" identity (2019: 2). Allen ascribes analytical purpose to his stories when he invokes the psychological study, however flippantly, thereby questioning the grounds on which these modes are distinguished and afforded value.

⁶ For further discussion of "Our Scientific Observations," *Strange Stories*, and Allen's entry into fiction, see, for example, Cowie (2000), Slaugh-Sanford (2012), Randolph (2005), and Morton (2005).

⁷ See Slaugh-Sanford's (2012) discussion of the Preface in the context of Allen's role as a scientific writer.

⁸ For a recent analysis of "The Curate of Churnside", see Abberley (2020).

Fiction and Fact

More readily apparent than the influence of non-fiction forms on Allen's fiction is the ubiquity of contemporary theories and ideas. Science was indispensable to his fiction-writing in this regard. During the *Pall Mall Gazette* interview, "'Colin Clout' at Home", he claims to "go to scientific and statistical authority for everything" and to be "fairly correct in my details" (1899: 2). This practice conveys a naturalistic aim to present "an explicitly 'scientific' way" of depicting events (Sleigh 2017: 80). Nonetheless, commitment to accuracy was second only to his desire to avoid the objectionable use of science, even at the expense of plausibility. In his words, "I sometimes distort a scientific detail purposely, so that no bad use should be made of it. I don't think a murder of mine could really be carried out" ("Colin Clout" 1899: 2). To illustrate, he recounts having employed "bad science" in *Kalee's Shrine* (1886), a novel co-written with May Cotes, in which he "cut an 'inhibitory' nerve in my heroine's eyelid, well knowing it could not have the effect I attributed to it" ("Colin Clout" 1899: 2).⁹ That the story was supernatural provided his justification for this biological inaccuracy, but proved contentious for the authors, since Cotes "supplied the supernatural which I wished to abolish, and I could only do it by employing bad science" ("Colin Clout" 1899: 2). This readiness to sacrifice plausibility, in certain circumstances, counteracts the naturalism that Sleigh finds in his science fiction. Compromise, it seems, was inevitable.

The issue of plausibility raises a further question: how precise was he, a man literate in science, expected to be when outside his "habitual sphere of work" (Allen 1884: v)? Carelessness in fiction was unfavourable enough to warrant comment in *Nature*. In Allen's novel *This Mortal Coil* (1888), the obliteration of a poplar tree by lightning is secretly facilitated through the installation of a "Ruhmkorff Induction Coil" and barrels of petroleum (209). The chemist Harry Napier Draper, in a brief item entitled "Fact and Fiction," disputed the novel with respect to three "practical points in electro- and thermo-physics" (1888: 221). Simpler and thriftier means of arboreal destruction exist, observes Draper, than "the elaborate expedient of burying and destroying an expensive piece of apparatus" (1888: 221). Why Allen had complicated the matter, given that he "is exceptionally well read and observant," Draper is "quite at a loss to understand" (1888: 221). For Draper, knowledge entails accountability, irrespective of context. That "scientific fact" may be "imported into modern fiction" he tolerates as a "not undesirable" circumstance, but, he insists, "it is surely important that it should be fact: loose statements are apt to perpetuate themselves" (1888: 221).¹⁰ While these remarks may seem pedantic, they belie the persistent expectation that, to quote Beer, it is "possible to translate stably" between scientific and literary discourses (1996: 173). Draper's objection to slipshod handling of detail seems to demand the coherent

⁹ Andrew Lang organised Allen's partnership with May Cotes, but information on Cotes is otherwise scant. Lang, referring to her anonymously in "At the Sign of the Ship" (December 1899), implies that she was not an established author, stating that the "germ of the tale was sent to me by a lady, and I suggested her collaboration with Mr. Allen" (1899: 190). Allen J. Hubin (2017), the notable bibliographer of crime and detective fiction and former columnist for the *New York Times*, identifies her as Oxfordshire-born Alice May Cotes (1859-1912); however, unlike Lang, he claims that she conveyed her idea to Allen directly.

¹⁰ Cowie concludes, in reference to this review, that "Allen took what facts were of interest, and the ideas which were arresting, and turned around them into tales which though not conveying all the truths of science, engaged readers and got his books noticed and read" (2000: 174).

transference of ideas that Beer terms “perfect gridding,” but which, she argues, is ultimately unworkable, given that “[o]nce scientific arguments and ideas are read outside the genre of the scientific paper and the institution of the scientific journal, change has already begun” (1996: 186, 179).

But ideas need not originate in the scientific paper, as “Our Scientific Observations” indicates. Indeed, stories could not only contribute to scientific discourse by delivering an argument but could surpass conventional modes of scientific writing in their educative potential. In a review for the *Academy*, Allen praises the “anthropological bias” of the stories in Andrew Lang’s 1886 collection, *In the Wrong Paradise, and other Stories* (1887a: 22).¹¹ Particularly effective, for Allen, is the unobtrusive way in which Lang’s tales act as a “delightful ... guise” for a “difficult science,” making the abstruse palatable and rendering the reader an unwitting student (1887a: 22). Indeed, the “pill is so delicately and cunningly sugared that only the wise will ever detect its underlying pilliness; the foolish will swallow it whole at a gulp as a more dainty sweetmeat” (1887a: 22). This metaphor, framing scientific education as an unpleasant activity to be endured for its health-giving benefits, dovetails with Allen’s protests elsewhere that general readers are indifferent to primarily informative texts. With the rather patronising sense that they do not know what is good for them, he suggests that readers may be entertained into education by a knowledgeable, inventive author. Strict faithfulness to detail is not essential: although scientific accuracy is sometimes wanting in Lang’s stories, “[f]iction is fiction,” Allen proclaims, “and must be allowed some little latitude” (1887a: 22). Significantly, an increase in readerly knowledge could occur despite this “latitude” and without detriment to literary value. Positioning the critical lenses of literature and science as mutually complementary, he discerns two ways in which Lang’s tales have merit:

If we regard them merely as *jeux d’esprit*, they sparkle with wit and abound in the finest undertones of irony. If we regard them as light contributions to anthropology and mythology, they are rich in pregnant hints of real value, and cut some knotty points a great deal better than professorial seriousness.

(1887a: 22)

Stories, then, present opportunities to reconfigure science for readerships less conversant in, or alienated by, “professorial” methods. It should be noted here that the opinions of Lang and Allen rarely harmonised; as Lang reflected, “I cannot easily call to mind a notion of Mr. Allen’s from which I did not differ” (1900: 410). He opposed Allen’s use of fiction for moral instruction with particular vehemence, insisting that “novels should be novels, and conform to the conditions of the art of fiction” (1892: 546). Allen’s somewhat hyperbolic praise for *In the Wrong Paradise* is perhaps a wry gesture towards these disagreements. Nonetheless, his sense that the stories do more than passively administer a dose of knowledge is significant; describing them as “contributions” implies scope for the active advancement of science (1887a: 22).

The idea that the stories untangle “knotty points” concurs with Allen’s claim that even a “wild, weird, strange romance” could qualify as an “instructive” source on several branches of science (1887a: 22; 1885: 271). Such was his opinion of *After London; or Wild England* (1885), the dystopian novel in which Richard Jefferies imagines a “[r]elapse into [b]arbarism”

¹¹ His own interest in anthropology culminated in his – generally ill-received – contribution to the field, *The Evolution of the Idea of God* (1899).

and nature's reclamation of urban space, following the destruction of England's capital city (Jefferies [1885] 2017: 3). Alongside fiction, Jefferies wrote extensively on rural life and was celebrated for his portrayals of a spiritual connection with nature; coincidentally, like Allen, one of his last works was a preface to a new edition, published in 1887, of *The Natural History of Selborne* by the eighteenth-century amateur naturalist, Gilbert White (Rossabi 2004). Allen's bewilderment at *After London*, which he described as a "curious, unique and fanciful volume," is validated by a recent editor of the work, Mark Frost (1885: 271). Frost attributes its "strangeness" partly to its contested "generic status," observing that it has been variously "cited as a dystopia, an apocalyptic novel ... a science fiction text ... a biographical novel, a Darwinian tale, a romance quest, and a novel of national identity" (2017: viii). Allen adds categories of scientific writing to this list: it is both a "study in hypothetical zoology," given its "account of the various species of wild dogs developed by natural selection", and – "[n]ot less instructive in its way" – a "sociological sketch of the wild races left behind by the exodus of the civilised" (1885: 271).

In his seminal study on the scientific romance, the genre later redefined as "science fiction," Brian Stableford argues that the "point of identifying some romances as *scientific* is not to make them into a species of scientific speculation to be judged by scientific standards" (1985: 8, original emphasis). What distinguishes them from "other kinds of imaginative fiction," he contends, "is not that scientific romances *are* scientific, but that they pretend to be, and that they pretend to be in order to serve some rhetorical purpose" (1985: 8, original emphasis). But Allen implies that the distinction may be less obvious. Indeed, he sees in *After London* "a great deal of 'applied science,' in a sense unknown to the compilers of handbooks, and a great deal of 'scientific use of the imagination,' in a sense undefended by Prof. Tyndall" (1885: 271). In his 1870 address to the British Association, entitled "Scientific Use of the Imagination," the physicist John Tyndall presented the imagination as a powerful tool in scientific inquiry and a robust means of advancing natural knowledge, provided that its usage conformed to observed scientific principles. "Bounded and conditioned by coöperant Reason," he declared, "imagination becomes the mightiest instrument of the physical discoverer" (1870: 16). Investigation so conducted does not sacrifice credibility, in his view; what is imagined is "real" insofar as it is grounded in the sphere of experience, a result of "that composite and creative unity in which reason and imagination are together blent" (1870: 20). Allen's allusion to Tyndall expands the purview of scientific investigation, defined as syncretising reason and the imagination, to include a "fanciful" piece of literature (1885: 271). Like Lang's "contributions to anthropology and mythology," Jefferies' "study" appears to be generative of knowledge, in this case within zoology and sociology (Allen 1887a: 22; Allen 1885: 271). Traversing the realms of futuristic fantasy, *After London* remains yoked to an environment that is not only recognisable, but usefully illustrates natural laws. In his compelling analysis of Sherlock Holmes and scientific method, Jonathan Smith, noting Tyndall's influence on Arthur Conan Doyle, argues that the "content of the [Holmes] stories is realistic but the effect of the stories is romantic" (1994: 235). Smith borrows a phrase from Oscar Wilde's essay, "The Decay of Lying," to suggest that Doyle viewed the stories as "'imaginative reality'" (Smith 1994: 235; Wilde [1891] 1909, vol. 7: 17). Allen seems to have found a similar mixing of realistic and romantic at work in *After London*, writing that Jefferies had so effectively conjoined "real human beings" with the "fairy world" that his novel is "not unreal, in spite of its impossibility" (1885: 271). If unreality does not foreclose possibility, then story-writing may constitute a scientific use of the imagination.

“Weird and fantastic realism”

As a reviewer, Allen considered Jefferies' work to refute established categories. “So individual a mind falls but ill into our conventional classifications,” he mused: “when it tries romances they are half science; when it tries essays, they are half poetry” (1885: 271-2). Contemporary commentators responded in similar terms to Allen himself, as the final part of this paper shows. Some critics presented him as an innovator, which is somewhat ironic, given his apparently inadvertent entry into fiction. “As a teller of the short story he is admitted, by those who know, to have been a brilliant pioneer,” proclaimed the poet and essayist Richard Le Gallienne (1899: 1019). Clodd likewise considered him “a better storyteller than he knew,” singling out *Strange Stories* as evidence of the “strenuous unwavering purpose” with which “he made fiction the channel of philosophy and science, while not obtruding either to the detriment of interest in the story” (1900: 95). Le Gallienne, with an air of representing the consensus, defined Allen's “best stories” as those that signalled the “accidental origin” of his storytelling, through their “illustration of some scientific or moral conception” (1899: 1019). Other reviews bear out this conclusion. It should be noted, however, that nineteenth-century reviewers often questioned the quality of his fiction. One particularly uncharitable opinion assigned him to a class of writers whose “short stories are usually written to order for a certain sum cash, and are characteristic as short stories only in the limited number of words they contain” (“Our Short Story Writers” 1895: 4). Several critics discussed below also found faults in his work. My intention is neither to ascribe Allen undue literary eminence, nor to overstate the merits identified by his contemporaries. Rather, I want to highlight the impression that his mixing of fiction and science was innovative, and at least unusual, as an indication of his role in cultivating new varieties of popular literature. Especially significant are suggestions that his scientific background was an asset in his story-writing.

Allen's style seemed to evade classification. In his novel *Babylon*, one reviewer noted, he “has kept in check his peculiar power of weird and fantastic realism, or realistic fantasy, if that seems less paradoxical” (“Mr. Grant Allen's New Novel” 1885: 5). This commingling of genres most likely refers to *Strange Stories*, published the previous year, but was in fact acknowledged by critics before Allen had highlighted the “narrow link” between *Strange Stories* and what he called his “more habitual sphere of work” (1884: v). A piece in the *Royal Cornwall Gazette* on 19 July 1878 described “Our Scientific Observations” as “a really clever article, which, though doubtless sheer fiction, is admirably like a record of facts” (“Magazines” 1878: 6). Rather than undermining its status as “sheer fiction,” the story's semblance of factuality “admirably” achieves what Beer might call a fairly stable “translation” between literary and scientific forms (1996: 173). Allen's idiosyncratic style was unusual enough for one reviewer of *Strange Stories* to remark that the “scientific tinge” of many of the tales gave them “the charm of novelty” (“Literature” 1884: 10). Other critics, meanwhile, saw parallels with eminent writers. “Many persons will be surprised to find,” the *Edinburgh Evening News* predicted, “that the author of stories which recall Edgar Allen [sic] Poe rather than any later writer in their fantastic horrors are from the pen of so enthusiastic a student of nature as Mr. Grant Allen” (“A Literary Secret Revealed” 1884: 3). For the *Bookman*, the way in which Allen applied “his scientific knowledge” to the composition of his early stories was “[s]omewhat like Mr. Wells” (“Twelve Tales” 1899: 89). This latter comparison is noteworthy, given that Wells “almost single-handedly made the sub-genre of science fiction fashionable,” (Orel 1986: 182) and yet called Allen its rightful owner (Wells c. 1895).

For George Bernard Shaw, Allen's scientific background was a decided advantage. In the novel *This Mortal Coil*, Allen says that it is "the curse of the purely literary intellect that it never looks at Things at all, but only at Phrases" (1895b: 216). Allen's "scientific training has saved him" from this curse, Shaw declares, "and so, with all his haste, he is free from the ordinary writer's desperate ignorance of all but the literary aspect of things—especially things that have been much written about" (1888: 3).¹² Implied here is that Allen not only has a better grasp of science than "ordinary writers," but brings an atypical perspective to more subjects in general (Shaw 1888: 3). In other words, "scientific training" (Shaw 1888: 3) fosters a lateral mode of thinking, allowing alternative ways of "look[ing] at Things" (Allen 1895b: 216). Shaw associates this "training" with dynamic creativity, describing *This Mortal Coil* "as a wonder of inventiveness and vivacity," whose strengths in this regard mitigate the "many drawbacks" of the novel (1888: 3).

In the Preface to *Strange Stories*, Allen highlighted the "slight tinge of scientific or psychological import" in most of the stories, identifying two as "a study from within" and "a psychical analysis" (1884: iv). For the *Daily News* reviewer, Allen's "sphere of mental work" meant that "he has habitually under his contemplation the manifestations of human nature, strange or simple, and nothing can be more natural than that he should employ some of the material he finds to his hand in the manufacture of 'Strange Stories'" ("Recent Novels" 1885: 3). For a contributor to the *Academy*, Allen's novel *The Incidental Bishop* (1898) gives "abundant play to both sides of Mr. Grant Allen's temper towards the world – the artistic and the scientific or theological" ("The Incidental Bishop" 1898: 470). This observation resonates with Tyndall's "scientific use of the imagination": Allen "has a remarkable inventive faculty," but his "logical mind ... constrains him to make even his strangest inventions consistent and complete" ("The Incidental Bishop" 1898: 470). In other words, logic brings welcome coherence to an otherwise objectionable strangeness. Finally, the reviewer of *Twelve Tales* for the *Bookman* takes Allen's lead in conflating the tales with psychological analyses ("Twelve Tales" 1899: 89). In these stories, which the writer considers "much more serious than his later work," Allen "made short scientific studies ... in the form of fiction" and, in four of them, "examined cases as a specialist in mental peculiarities or diseases would have examined them. But he wrote the results in the form of tales and not of notes" ("Twelve Tales" 1899: 89). In other words, scientific analysis does not, to quote Allen, demand "professorial seriousness" (Allen 1887a: 22).

Conclusion

Science lay at the heart of Allen's worldview and his body of work, but an overall sense that his fiction-writing conflicted with such interests has prevailed. An unnamed "scientific friend," quoted in *The Outlook's* obituary, epitomises the view of Allen's career as a relentless series of battles overshadowed by disappointment: he had to "fight his way as journalist, a teacher of literature, a popular lecturer, and ... nearly won his chief fame as a novelist," and although he made contributions to natural science, his "scientific friends" regretted

¹² Brian Tyson (1991) attributes this anonymously published review to Shaw in *Bernard Shaw's Book Reviews Vol. 1 (Pall Mall Gazette, 1885-1888)*, Pennsylvania: Pennsylvania State University Press, which Greenslade and Rodgers cite in "Resituating Grant Allen."

that his brilliant intellect, his keen insight and tireless observation could not have been set free to devote themselves entirely to his chief interest and darling hobby, the great problems of life and its development.

(“Mr. Grant Allen: Appreciations” 1899: 403)

Allen himself, the author contends, considered fiction-writing to lie outside of this “chief interest,” and “to the last ... regarded it chiefly as a means of securing occasional leisure and opportunity for the scientific studies in which his heart really was” (403).

Although his experience of financial hardship should not be downplayed, it would be simplistic to regard Allen’s stories primarily as commodities that funded, but were separate from, his “scientific studies” (403). The complexity of as broad an issue as “the great problems of life and development” suited an equally diversified approach to confronting it, which, for Allen, encompassed popular fiction as well as the scientific paper (403). Literary forms were opportunities to participate in scientific discourse, to make an argument, and to introduce readers to new ideas, which, in Allen’s case, manifested in contradictory ways. While *The Woman Who Did* reformulated the polemics of his essays, Allen granted scope for popular genres, including short stories, to make original contributions, his experimental approach giving rise to unconventional texts aligned with emerging genres such as the scientific romance.¹³ But Allen, as a popular author at the margins of professional science, also prompted questions about the degree of accuracy that such writers were expected to uphold. In his popular fiction and comments on the craft, he invites us to reappraise our assumptions about different textual forms, especially in terms of the possibilities – and limits – of what they can achieve.

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¹³ It is hard not to appreciate the irony that the emphatically purposive *The Woman Who Did*, intended to defy the serial market, became Allen’s most popular work of fiction.

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