

Romanticism and Victorianism on the Net

Charles Darwin's "Scientific Wit": Incongruity, Species Fixity & The Nonsense of Looking

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Article abstract

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Abstract

Critics have often noted Darwin’s enthusiastic curiosity (Beer, Levine, Amigoni, Schmitt, Browne) in the *Journal of Researches* (1839)—particularly its “intensely libidinous” nature (Beer)—but his “strange antics” and numerous instances of “amusement” have been treated as little more than biographical gloss, or charming digressions on the way to a much larger story. But re-reading these understatedly comic episodes through the interpretive prism of incongruity produces a new set of emphases, and intellectual and affective affinities. For, like Michel Foucault’s laughter at the beginning of *The Order of Things* (1966), Darwin’s “scientific wit” has distinctly taxonomic implications.¹ Incongruity figures the splicing of two previously un-apprehended interpretive frames, a kink in the logic of expectation. While Darwin later naturalizes (rather than spectacularizes) incongruity into his scientific method, in its first iteration in the *Journal*, it performs vital cultural and aesthetic work: upturning sublimity and delivering detail and present-ness rather than vastness and transcendental awe. Building on Arthur Koestler’s theory of “bisociation”, I argue that incongruity—a gentlemanly and Enlightenment theory of comedy that is fundamentally horizontal rather than vertical in its purview—operates by making Darwin’s own previous expectations, rather than any object, animal or person, the butt of the joke. The “clash” of comic frames at the point of observation limns incongruity’s usefulness as a form of visually self-stimulating *agon*. These “shifts of attention” (Koestler), I propose, have significant implications in his early evolutionary theorizing: gesturing towards Darwin’s own “nonsense” aesthetic: one that is highly suggestive of non-essentialist approaches to species thinking.

Biographical Note

Louise Lee has recently edited *Victorian Comedy and Laughter: Conviviality, Jokes and Dissent* (forthcoming Palgrave 2019), which includes her essay, “George Eliot’s Jokes.” She has published essays on Emily Brontë, Mary Elizabeth Braddon and Charles Kingsley, and with Mark Knight, co-edited

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Religion, Literature and the Imagination: Sacred Worlds (Bloomsbury 2010). At Roehampton, she teaches a third-year course called “Laughing Victorians”.

I. Against Laughter; Or “How We Encourage Research”

1. What is the function of laughter in the production of knowledge? What does it mean to break into hilarity, to snort, to snigger, to guffaw or laugh inwardly: does it connote a moment of intellectual vacuity—or potency? In the information-saturated world of twenty-first century late capitalism, laughter is, of course, everywhere: both opiate and stimulus, raucously erupting from our screens, from digital LOL-culture, to stand-up comedy, to TV sit-coms and Skype. Not only in staged settings do we laugh—in cinemas, clubs and theatres—but in daily life, on the weekday commute, via twitter, or at coffee machines, we laugh both quietly and uproariously, both inappropriately and appropriately. Laughter can be congenial and smooth—about social politesse—but also, alarmingly bodily, involving rictus and even, wetness. Yet alongside this sometime viscosity, laughter can also prove trickily thought-provoking, leaving resonant traces in the memory. In Elizabeth Bishop’s poem “The Wit” (1956), she describes the “thunderclap of laughter” but then—after the explosion has subsided—the “spaces, after”; these pauses to be re-visited or re-consummated into an unknown future (Bishop 198; Bevis 6). In these and other moments, laughter appears, rather than emptied of meaningful content, almost exactly the reverse: provocatively and inexorably idea-forming. It is the reason perhaps, that “getting” a joke feels like solving a problem or that comic reversals often present as epistemological ones.
2. But despite laughter’s unsettling capacity to disrupt and complicate a line of thinking, it has suffered as the historic poor relation to seriousness in post-Enlightenment debates about intellectual and cultural formation. Walter Hipple’s seminal work on aesthetics postulates the observation, oft-made since, that the ludicrous—defined by the *OED* as “capable of arousing laughter, funny, comic, amusing, absurd [and] silly”—was an ignored or underrated category in debates of the eighteenth and early nineteenth century (Hipple 113; qtd in Olsen 25). While discussions raged, for example, about the infinitely incalculable and nuanced effects of the sublime on subjectivity and mental causation, laughter’s cognitive potential was given decidedly shorter shrift. Immanuel Kant’s brief addendum on laughter to the passages on beauty in *Critique of Judgment* (1790) is a case in point. Contributing the original insight that laughter is triggered by a “sudden” incongruity i.e. a mismatch of intellectual processing, Kant proffers the corollary explanation that laughter occurs as a result of the “transformation of tense expectation into nothing.” In fact a telos of nothingness and insubstantiality governs Kantian and some (though,

not all) German idealist writing about laughter, engendering separatisms between levity and gravity still evident in modern scholarship (Kant 161; Berger 15-37).

3. Critics attempting to account for the “extraordinary conservatism” of some early nineteenth century writers towards laughter as a disciplinary mode, have conjectured both frivolous and serious reasons (Connor, “Art, Criticism and Laughter” 3). One irresistible inference, as Steven Connor suggests, is the constitutional inadequacy of some philosophers to fully appreciate a joke—and certainly, one of Kant’s very few quips in *Critique* about a beer bottle is grist to this mirthless mill:

Suppose that some one tells the following story: an Indian at an Englishman's table in Surat, saw a bottle of ale opened, and all the beer turned into froth and flowing out. The repeated exclamations of the Indian showed his great astonishment. “Well, what is so wonderful in that?” asked the Englishman. “Oh, I'm not surprised myself”, said the Indian, “at its getting out, but at how you ever managed to get it all in” (161).

“At this” Kant describes, “we laugh and it gives us hearty pleasure.” Setting aside the universality—or not—of the amusement produced by this scene, it is highly constitutive of the way that laughter is cognitively constrained by Kant’s own viewpoint. The fact that the exchange is “comic” in the first place rests putatively on an incongruity—a kink in the logic of expectation—although actually, and despite Kant’s assurances to the contrary, its strongest underlying force is a racial superiority joke. Kant’s laughter here is precipitated by the momentary realization of the contrast between his grandiose expectations of what causes the Indian’s astonishment, and the apparently banal reality of what actually prompts it.

4. But it is the end-product of Kant’s joke, or rather the lack of it, which is truly noteworthy: the effects of the laughter are equated here with the action of the overflowing beer: “the bubble of our expectation was extended to the full and suddenly burst into nothing” (161). The spilt beer delimits Kantian laughter in a decisive way: once escaped from the bottle, it is gone, completed and cannot be returned. Kant treats laughter here as cognitively summative rather than formative. There are no “spaces, after” nor any restive urge to revisit the scene in the imagination. The nullity of Kantian laughter is again foregrounded in another passage in which it is constructed as a purely physicalized self-colloquy that by-passes the intellect and is relegated to the workings of the digestive system:

[I]t is readily intelligible how [...] shifting the mind now to one standpoint and now to the other, to enable it to contemplate its object, may involve a corresponding and

reciprocal straining and slackening of the elastic parts of our viscera, which communicates itself to the diaphragm (and resembles that felt by ticklish people) in the course of which the lungs expel the air with rapidly succeeding interruptions, resulting in a movement beneficial to health. This alone, and not what goes on in the mind, is the proper cause of the gratification in a thought that at bottom represents nothing (162-3).

While Kant does at least locate laughter within the “elastic” parts of the body, it is an interruption that, while health-inducing, is nonetheless borne away on a thought that “represents nothing.” The knock-out punch, though, that removes, almost entirely, laughter’s cognitive agency, is delivered by G W F Hegel, who, in *Aesthetics: Lectures on Fine Art* (1835), stakes out the terms of the laughing world as so exuberantly cheerful—and yet so value-free and unimportant—that it simply does not matter what occurs within it. Differentiating between the “ridiculous” that produces laughter (and that, he says, can be virtually anything) and the “comic”, he demarcates an alternate laughing universe that operates something like a big facile bubble, brainlessly bobbing up and down alongside the real:

Here pretty and worthless purposes are accomplished with an appearance of great seriousness and after elaborate preparations. Yet, after these purposes collapse, their author can rise up from his fall in free cheerfulness, just because his purposes were so negligible that nothing is really lost when they fail (qtd. in Berger 25).²

The insulated world constructed by Hegel here removes all the importance of any lived experience, proffering no more than a benign simulacrum of the actual, with none of the serious consequences.

5. In what follows, however, I suggest a different model of laughter to Kant’s completed acts, and to Hegel’s no-value low-content comic universe, and argue that it is precisely this comic exuberance that shaped Charles Darwin’s experiential world, and his thinking in his first published, and most literary work, *Journal of Researches* (1839). Critics have often noted Darwin’s enthusiastic curiosity (Beer, Levine, Amigoni, Schmitt, Browne) in the *Journal*, particularly its “intensely libidinous” nature (Beer, “Four Bodies on the Beagle” 20), but his “strange antics” (*Journal* 195) and numerous instances of “amusement” have been treated as little more than biographical gloss, or charming digressions on the way to a much larger story. But re-reading these understatedly comic episodes through the interpretive prism of incongruity produces a new set of emphases and intellectual and affective affinities—with distinctly

taxonomic implications.

6. Before that: a caveat. In making this case, I cut across an increasingly dominant image in Victorian studies of the later mournful Darwin, almost Christ-like in his endurance, as a man suffering both mentally and physically for the pursuit of knowledge. The ideological shaping of Darwin’s later career talks to a wider bourgeois preference in the early to mid-Victorian period for lachrymose respectability, one that publicly, at least, occluded gelastic narratives even when these were enjoyed in camera.³ These muted codes of affect also helped forge the formal, public character of science itself in the middle of the nineteenth century, co-mingling with self-denying asceticism to present an image of Darwin, as sober secularist, embodying, as Gowan Dawson has shown, all the seriousness-ness of a Victorian evangelical but with none of the belief (*Darwin, Literature and Victorian Respectability* 14). Richly suggestive work in this vein, most notably, Paul White’s “Darwin Wept: Science and the Sentimental Subject”, and Jim Endersby’s “Sympathetic Science: Charles Darwin, Joseph Hooker and the Passions of Victorian Naturalists” consider how the mature Darwin and his fellow scientists, T H Huxley and Joseph Hooker—who all tragically lost young children through illness—were involved in discreet gentlemanly circuits of mourning. These private experiences acted as both scientific and affective exchange, modifying their engagement with the public sphere but also, significantly, their professional practice. The sympathy reproduced in letters of condolence, and private scenes of weeping, tacitly fed into scientific observation, White notes, remodelling it from the inside out. The experience of loss occasioned reflection on the “nature of grief, its mechanisms and its causes” (“Darwin Wept” 199).
7. The sacrificial labour of science is also the notable theme of George Levine’s *Dying to Know: Scientific Epistemology and Narrative in Victorian England* (2002) which argues that transliterated theological traditions of self-abnegation produced an epistemological enterprise with a “powerful moral valence”:

It is *good* to know, and therefore the enterprise of knowing—even against the initiating myth of the fall into knowledge—is a good enterprise [...] Beyond beginnings and endings, in the very middle of the activity of knowing, there is the injunction of self-sacrifice: to sacrifice anything and everything, particularly one’s own desires, in order to know (20).

While Levine argues that the “heroic” Baconian project of letting “nature speak for itself” produced “utter humility” sometimes, in the pursuit of “Faustian goals” these often depended not

only on a Cartesian deferral and displacement of the self, but on an actively punitive attitude to physicality (49). Careful to acknowledge that such corporeal effacements are not the only tradition within Victorian science, Levine nonetheless depicts a world where, for many Victorian practitioners, the pursuit of knowledge “entailed a radical distrust of the body and a sacrifice, rather like death, of normal human desire” (66). These thematics are satirically deployed in George Eliot’s last work of fiction, *Impressions of Theophrastus Such* (1879), where the eponymous diarist, a retired academic, writes a thesis entitled “How We Encourage Research” and compares the current age of “truth-finding” to a medieval torture chamber: “Some cruelties still pass for service done in [truth’s] honour: no thumb-screw is used, no iron boot, no scorching of flesh; but plenty of controversial bruising, laceration, and even lifelong maiming” (28).

8. Increasingly through the century, the nightmare spectre that stalks the procedural and ethical practices of Victorian science is that subjective bias might taint and deform the evaluation of empirical evidence. This fear drives controversies over induction and deduction that dominate the mid-Victorian period between John Herschel, William Whewell, J S Mill and Auguste Comte; debates which are taken up in Lorraine Daston and Peter Galison’s important *Objectivity* (2007), where they suggest the pursuit of the “epistemic virtue” of the “real”, unsullied and uncorrupted by the personal or the idiosyncratic, involves a further step towards the total erasure of the fleshly with the emergence of the “blind sight” of “mechanical objectivity”(16-17). Seeking in objects such as the camera (though this, in itself, is complex) a form of vision divorced of human mediation, mechanical objectivity operates in opposition to previous regimes of looking proffered by natural philosophers of the eighteenth century who sought out “truth-to-nature” and representative types, rather than the attention to detail of the Victorian period (63).

II. Reason & Un-Reason: Darwin’s “Double Individuality”

9. Yet against these scientific mid-Victorian narratives that strain falteringly either towards post-Cartesianism, or else a suffering, even tear-stained, objectivity, I want to consider Darwin, at the beginning of his career, and not at the end, within a decidedly more embodied, subjective, pleasure-seeking construction of the self than the ones discussed so far; at a moment when science itself had not found what Gillian Beer calls a “stable professional dialect” (“Translation or Transformation?” 175). It is significant that Daston and Galison’s *Objectivity* contains only two mentions of Darwin. They refer to his “stay-at-home” scientific career and quote his own account

of careful doggedness in the pursuit of knowledge (*Objectivity* 298, 230). This may suggest his *sui generis* place in nineteenth-century science, but also the impossibility of placing him easily within an “objectivity” narrative. This is a problem compounded by Darwin’s own fugitive indeterminacy on the subject. As Francisco J. Ayala notes, in later life, and, as a much-honoured man of science, Darwin was keen to publicly emphasize the inductive rather than the deductive element of his thinking, arguing in his *Autobiography* (1887), that he worked from data and statistics first— “true Baconian principles”—and theory later (Ayala 10033; Barlow 119). In private correspondence, however, Darwin told a younger scientist, in 1861, that you needed a “theory” against which to measure your observations—or else you “might as well go into a gravel-pit and count the pebbles and describe the colours” (*Darwin’s Plots* 73; *More Letters* I: 176).

10. But there is a further complication. In the privacy of his home at Down House, Darwin advocated a decidedly more anarchic approach, one that would have received scant public approval at any meeting of the British Association for the Advancement of Science, but one which Darwin’s wife Emma was fond of quoting: “It is a *fatal fault* [my italics] to reason while observing, though so necessary beforehand and so useful afterwards” (qtd. in Richard D. Keynes, “From Bryozoans to Tsunami” 103). This is an intriguing comment, and while to some extent apocryphal, because it has no formal citation in Darwin’s work or letters, it is one that, if true, licenses a somewhat different reading of Darwin’s exchanges with the natural world. For if, as Darwin’s comment implies, “reason” is a fatality during observation, what, then, constitutes scientific looking? And why does “unreason”, privately enjoined, appear to be so essential to Darwin’s engagement? I will be suggesting that what Darwin demonstrates in his years on the Beagle is a kind of nonsensical negative capability during the act of observation, not as mere weak-minded indulgence, however, but, as here, as observational and speculative necessity.⁴ And while we are used to interpreting the spatial upturns and topic destabilizations of Victorian nonsense fiction, with its aesthetic of what Jean-Jacques Lecercle calls “ruin[ed] [...] seriousness”, as a cultural response to evolutionary thinking (*Philosophy of Nonsense* 192), we are less used to the idea that in thinking through his theories, particularly in his early encounters with animals during the Beagle years, Darwin developed his own nonsense aesthetic, before arriving at what John Herschel called the “law of higgledy-piggledy” (Darwin, *Life and Letters* II 241).⁵
11. The form of constructed release from reason above is again suggested in an entry in his M Notebook, as Darwin was writing up and redacting *Journal of Researches* in August 1838:

The possibility of the brain having whole train of thoughts, feeling and perception separate from the ordinary state of mind, is probably analogous to the double individuality implied by habit, when one acts unconsciously with respect to more energetic self, and likewise one forgets. what one performs habitually (*Charles Darwin’s Notebooks* 538).

The energetic, even escapee, self that Darwin alludes to here suggests a larger-than-life persona that belongs to a “double individuality” that both inhabits, but also breaks out of, habitual thought; skirting the boundaries of reason and un-reason. Darwin’s consideration of ways to fix attention, and also to access forms of thinking beyond the self, were key issues in August 1838 as he experimented how to “unbend” his mind (*Charles Darwin’s Notebooks* 539-541) to avoid over-exertion; but also to engender close focus. Sometimes, however, these quests veered so far away from the non-habitual as to be positively surprising, even madcap. On another August day in 1838, for example, he describes himself wandering aimlessly around an art exhibition and being so bored with what he saw before him that he resorted to sniffing the paintings:

When in the National Institution and not feeling much enthusiasm, happened to go close to one and smelt the peculiar Picture. association with much pleasure immediately thrilled across me, bringing up old indistinct ideas of Fitzwilliam Musm. I was amused at this after a seven years interval. (*Charles Darwin’s Notebooks* 539)

Despite the apparently nonsensical approach, there is a methodology in Darwin’s madness: the enlivening and synesthetic connection with previous trains of thought and associations manages to revivify his interest. But the link here with a full-bodied pleasure that “thrill[ed]” across him, even with “old indistinct ideas” (another form of “unreason”), is an important one, suggesting the body—far from being an entity to be feared, derided or lacerated—is a repository for future thought.⁶ This capacity of the body to act as a fleshly research tool or what Pierre Bourdieu calls a “living memory pad” for Darwin as a scientist (a term that did not enter general parlance until the twentieth century) is, as I will show, most clearly suggested in his connection with laughter and comedy (*Logic of Practice* 68).⁷ This may be an anti-intuitive claim, especially given the fact that the best and most authoritative scholarship on Darwin has tended to assume and reinforce the image of him as the serious, always-focused investigator, the proper Victorian gentleman and sage. But I want to re-situate Darwin as accessing the “double individuality” he talks of; not only as a heterogeneous reader in the 1830s of all those literary and scientific texts which have been so generously discussed by critics in the last thirty years, from Shakespeare, Montaigne, Milton,

Von Humboldt, Malthus, Dryden, Browne and Wordsworth (to name but a few), but to connect him with other forms of leisured and comic reading; reading that often traverses the boundary between Darwinian reason and un-reason (Beer, “Darwin’s Reading” 549-557; Levine *Darwin and the Novelists*).

12. This tactic risks, of course, over-promoting the importance of comedy to Darwin. Nonetheless, this paper indulges in the perhaps quasi-nonsensical and decidedly non-habitual pleasure (like Darwin’s painting-sniffing episode) of a restorative critical thought experiment: redeeming comedy and laughter from merely belonging to what Robyn Warhol has termed the “subnarratable” (being deemed so vapid or banal that it does not merit being mentioned), to thinking how it might be deployed as a tool for scientific, and particularly, evolutionary thinking (“George Eliot’s Narrative Refusals” 51). The “double individuality” between seriousness and comedy is invoked by Darwin himself in another entry in the M Notebook on the same day in August 1838, when he was sitting in the Athenaeum Club, reading two articles—one amusing, the other serious—both of which occupied his attention fully. One was David Brewster’s review of Auguste Comte’s *Cours de Philosophie Positive* (1830-42), in the July edition of the *Edinburgh Review*; the other was Charles Dickens’s *Sketches by Boz* (1838):

Aug 12th. 38. At the Athenaeum Club. was very much struck with an intense headache <<after good days work>> which came on from reading <<review of>>M. Comte Phil. which made me <<endeavour to>> remember, & to think deeply, & the immediate manner in which my head got well when reading article by Boz —now in this I was interested as I was in the other, and read so intently as to be unconscious of all around, yet there was no strain on the intellectual powers — the difference is of a man wagging his foot & working with his toe to perform some difficult task.—(*Charles Darwin’s Notebooks* 539)

As Beer observes about this passage: “The Comte gave him a headache. The Boz cured it” (“Darwin’s Reading” 548). What is striking about both metaphors, of foot-wagging and toe-working, is how they figure the mind in purely physicalist terms: the first, foot-wagging, suggesting an intuitive flow, easily according with the natural pulses and rhythms of the body; and the second—the difficult task of reading a dense and complex text about scientific method—is bestowed on here as almost a prehensile toe, struggling and stretching to perform a complex activity of deep thought.⁸

13. But what is more significant, for my argument, is that unlike Kant and Hegel, Darwin does not insist on laughter’s subordination to seriousness; but rather on its equivalence; and also its supple and easy difference. And it is this difference, but also, importantly—as Darwin acknowledges—its comparable aesthetics of concentration, that I want to pursue further to build this double picture. For developing a bifocal approach to both seriousness and levity produces a provocatively alternative version of Darwin, and perhaps even, of the Victorian scientific self. Another instance of this double-ness occurs in a letter to the geologist Charles Lyell, again in August 1838, in which Darwin writes mercurially on many things, including his first field trip since the Beagle expedition to Glen Roy. This would be the source of what he would later call his “Big Blunder” as David Amigoni comments:

The Glen Roy formation and the sea-action thesis formulated against prevailing theories (wrongly as it turned out) famously required Darwin to speculate on agencies and motive powers that seemed out of place. Glen Roy posed Darwin the problem of erratic rocks, located 2,200 feet above sea level. Darwin’s identity as a geologist took him to landlocked gravel pits in an effort to tell stories about sea shells and fossils, that due to the present position of the sea, were seemingly out of place [...] (“Between Medicine and Evolutionary Theory” 182) ⁹

Nonetheless, alongside the pressure of conjecture, and the construction of science as “prediction” (a faculty which, in the same letter, he told Lyell he admired in Comte’s *Cours*), Darwin’s writing is full of cheerful anecdote and gossip about the British Association, the Athenaeum, and also about the progress of a new health regime of trying to work for only two hours a day (a suggestion made by Lyell himself). And, as if to underline the latter point, Darwin signs off with a valediction to Lyell’s wife about his latest reading:

Tell Mrs Lyell to read the second series of Mr Slick of Slickville’s sayings [...]”They are dreadful odd and amazing comical” as Mr Slick himself would say. —He almost beats “Samivel” that prince of heroes. — Goodnight my dear Lyell. You will think I have been drinking some strong drink to write so much nonsense, — but I did not even touch Minerva’s small beer today (Darwin, *Life and Letters* II, 294-5)

There is a certain crepuscular illogic to Darwin’s late-night recommendation of the second edition of Thomas Chandler Haliburton’s *The Clock-Maker: The Sayings and Doings of Samuel Slick of Slickville* (1836-8) which may not make this letter representative. But his patent enthusiasm for comic reading suggests its rejuvenating place alongside all his other reading, and also, alongside

the hard work of speculation, allowing him (again) to “unbend his mind” as he “builds his castles in the air” (*Charles Darwin’s Notebooks* 547). But what is also noteworthy is that the connection to the comic also creates, by Darwin’s own admission, a state of (entirely sober) near-intoxication about his relation to the world; one that, as I will be suggesting, is both attentive and creative. This tension between the serious and comic, between restraint and freedom, is again suggested by Darwin’s great-great-grandson Randal Keynes, who recently reported that even later in life—when Darwin complained that he had lost all interest in reading literary texts and feared he was little more than a “machine for grinding general laws out”—he still kept a copy of Mark Twain’s 1865 humorous short story “The Celebrated Jumping Frog of Calaveras County” by his bedside (*Autobiography* 138-9; Randal Keynes). And it is here, now, that I want to move the argument closer to Darwin’s scientific method in the *Journal of Researches*, and also towards the vision of a modernity that began this essay; and which Darwin helped to inaugurate.

III. Pickwickian & Darwinian Incongruities

14. For what unites, animates and indeed vitalises many of these “lighter” texts, from Twain’s story about a betting man and a leaping frog to Dickens’s *Sketches by Boz*, and *The Pickwick Papers* (1836-7)—which produced Sam Weller, or the “glorious Samivel”—is the comic figure of incongruity, a style of humour that, as Daniel Wickberg asserts, increasingly came to stand for comedy itself by the end of the nineteenth century (*The Senses of Humour* 8). To explain more precisely what incongruity is, and how it might operate with regard to Darwin’s scientific thinking, I want to go to two main examples. The first is a parodic vision of science not getting the point from *Pickwick Papers*; and the second arises early in Darwin’s *Journal*. As many critics have discussed, *Pickwick Papers* (like Darwin’s scientific travelogue) is an inherited formula, but it also begins as a spoof of science of the 1830s: a historical moment that provided rich pickings for the rollicking treatment that Dickens so lavishly rendered it.¹⁰ As James Secord observes, one of the key shifts was early Victorian science’s changing institutional focus:

Old institutions and methods of understanding were recast and new ones developed that we now see as fundamental. Science [...] had previously included all theoretically grounded knowledge—including grammar, rhetoric and theology; now it was increasingly used to include only the study of nature. New institutions were organised for conducting investigations, with specialised facilities including batteries, furnaces

and other instruments for breaking things down and combining them in unexpected ways (*Visions of Science* 5).¹¹

Science’s everything-ness was slowly being replaced in the 1830s.¹² Even so, as Nancy Aycock Metz suggests, when the amiably deluded Samuel Pickwick is first introduced, he emerges amid a “tissue of allusions” to the “decline of science”:

“New” scientists were [...] the frequent butt of satire from the late seventeenth century to the early nineteenth centuries, accused of pedantry, vanity, gullibility and alienation from the higher good in their narrow quest for useless and questionable facts. When Pickwick records in his ever-ready notebook the “singular circumstance” of a forty-two-year-old horse kept out for two or three weeks at a time, Dickens recalls a whole genre of [...] reportage [...] of “singular instances” (“Pickwick Plumbs the Hampstead Ponds” 284).

15. The problem about “singular instances” as a style of scientific narrative is their peripatetic plotlessness and their (probable) scientific irrelevance. But what also drives the humour in the excerpt above is what “science”—as represented by Mr Pickwick, whose recent paper on Tittlebats in Hampstead Pond had “agitated the scientific world” (1)—*misses*. To understand what this is precisely, it is worth revisiting the scene where, with notebook anxiously in hand, Pickwick interviews an increasingly suspicious London cabman about his horse’s “weakness”:

“How old is that horse, my friend?” enquired Mr Pickwick, rubbing his nose with the shilling he had reserved for the fare.

“Forty-two,” replied the driver, eyeing him askant.

“What!” ejaculated Mr Pickwick, laying his hand upon his note-book. The driver reiterated his former statement. Mr Pickwick looked very hard at the man’s face, but his features were immovable, so he noted the fact down forthwith.

“And how long do you keep him out at a time?” inquired Pickwick, searching for further information.

“Two or three weeks,” replied the man.

“Weeks!” said Pickwick in astonishment—and out came the notebook.

“He lives at Pentonwil when he’s at home,” observed the driver, coolly, “but we seldom takes him home on account of his weakness”

“On account of his weakness;” re-iterated the perplexed Mr Pickwick.

“He always falls down when he’s took out of the cab,” continued the driver,” but when he’s in it, we bears him up werry tight, and takes him in werry short, so as he can’t werry well fall down, and we’ve got a pair o’ large precious wheels on: so ven he *does* move, they run after him and he must go on—he can’t help it.”

Mr Pickwick entered every word of this statement in his note-book with the view of communicating it to the club, as a singular instance of the tenacity of life in horses, under trying circumstances (*Pickwick Papers* 7-8).

In Pickwick’s earnest but po-faced enthusiasm to consider a generalised abstraction as the outcome of this exchange— “a singular instance of the tenacity of life in horses under trying circumstances”—he neglects a far more fundamental structural relation produced by incongruity: that the carriage is holding the horse up, rather than the other way round. (And not only that, but the “pair o’ large precious wheels” are being used to force the horse to move both spontaneously and constantly). One of the key aspects that makes eighteenth and nineteenth century incongruity theories more intellectual than previous theories of humour, like Aristotelian or Hobbesian superiority theories, is an inalienable linkage with perceptual strategies. In Book Two of John Locke’s *An Essay Concerning Human Understanding* (1690) he asserts that any judgement must depend on “the clear discerning faculty of the mind where it perceives two ideas to be the same or different” (123). The real judgement comes, however, as Michael Billig suggests, in separating out things that appear to be the same but actually are different (*Laughter and Ridicule* 62-3).

16. This is what eludes Pickwick when he reaches—with too solemn alacrity—for his notebook. An understanding of incongruity here, on the other hand, would have taken the horse’s plight from being one of type to singularity. But Pickwick’s “veakness” is also science’s “veakness”, as Dickens presents it here. Yet what science, or indeed any kind of system-building misses, is also a redolent theme in Søren Kierkegaard’s *Concluding Unscientific Postscript* (1846). In this, he proffers an extended consideration of the kinds of incongruity that abound in both Dickens and Darwin, including rendering, at one point, a prolonged footnote across numerous pages on the subject.¹³ One Kierkegaardian episode, in particular, resembles one of the less violent drinking stories told by the Pickwick Club:

[A] barefoot peasant [...] comes to town and makes so much money that he can afford to buy new shoes and stockings and still have enough money left to get drunk. On the way home, inebriated, he lies down in the middle of the road and falls asleep. He is awoken by the driver of a passing carriage who tells him if he doesn’t move, the

carriage will run over his legs. Looking down at the unfamiliar shoes and stockings, the peasant replies: “Go ahead, they’re not my legs” (qtd. in Lippitt 149).

17. As John Lippitt suggests, “the tendency to relate ‘objectively’ to issues that are properly engaged with ‘subjectively,’ that is, in the first person, is a key theme of *Postscript*” (Lippitt 163). And these often concern life at the boundaries of knowledge, where Socratic limits are encountered and challenged. Unlike his more secular contemporaries, Kierkegaard regarded Christianity itself as a fundamentally comic religion, embodying the greatest example of incongruity of them all: that God entered human time to save to humanity (Lippitt 151). But, as I want to discuss now, it is the incongruity that God never entered human time at all which is what many Victorians were attempting to process.
18. In considering incongruity’s place in a developing Victorian secularity, this essay goes against the grain of current scholarship. The focus of much recent New Historicist study between literary and scientific circles has been on the workings of analogy. Devin Griffiths’s important study *The Age of Analogy: Science and Literature Between the Darwins* (2016) traces the application of analogy as a means of giving shape to scientific thinking which has yet no name, and also as a rhetorical device for naturalising abstractions that seem strange or alien. In tracing analogy’s role in promoting scientific thought in wider social and scientific networks, Griffiths argues for the importance of “comparative historicism” as a model for introducing novelty while asserting its historical continuity between past and present (*Age of Analogy* 1-50). Using this template, we can more fully appreciate the rhetorical poise of Darwin’s famous analogy of domestic pigeons and man-made breeder selection to demonstrate the invisible, and far more threatening, workings of natural selection in *The Origin of Species* (1859). Yet while *Origin* promised “one long argument” this statement of apparent rhetorical smoothness belies the a-historical fits and starts that got Darwin to that point (*Origin* 357). And it is here that I argue that what incongruity induces (unlike the workings of analogy), is not a comforting continuation with the past, but a radical, though often temporary, rupture of historicity, associated with the immanence of a troubled present, and even, future: a radical form of epistemological breakage. In 1872, an anonymous writer on incongruity in the *British Quarterly* describes its effects thus: “It is as if a partition wall in our intellect was suddenly blown-out, two things formerly strange to one another have flashed together” (qtd. in *Dickensian Laughter* 98).
19. To begin to consider how Darwinian incongruity operates in the *Journal*, I want to compare the example of Kantian and Dickensian incongruities that began this paper, to a moment in October

1833, when Darwin, as part of his five-year journey through South America, the Galapagos Islands, Australia and New Zealand, heads through Argentina from Santa Fe towards Buenos Aires, in search of a *Toxodon*’s tooth. It was a journey which Darwin began in much excitement, to pair up two teeth that belonged to the same enormous prehistoric jawbone. He procured a canoe, and with the help of local guides, proceeded to the place where, as he had been told, the remains of some “old giants” had been seen on the banks of the Parana:

Two groups of immense bones projected in bold relief from the perpendicular cliff. They were, however, so completely decayed that I could only bring away small fragments of one of the great molar-teeth; but these were sufficient to show that these belonged to a species of *Mastodon*. The men who took me in the canoe, said they had long known of them, and had often wondered how they had got there: the necessity of a theory being felt, they came to the conclusion, that like the *bizcacha*, the *mastodon* formerly was a burrowing animal! (147).

At first glance, this scene appears like another episode of Kantian superiority dressed up as incongruity. Darwin is apparently amused initially by the naiveté of his guides. Yet the impetus of this joke is fundamentally different to Kant’s, and to *Pickwick*’s, because firstly, Darwin recognises the incongruity; but also because the structuring animus of the joke involves the incongruous apparition that an enormous bulky creature like a *mastodon*, complete with huge tusks, might (like the small rabbit-like *bizcacha*) have once been a burrowing animal. This thought is registered only with an exclamation mark by Darwin, but acts as a *mise en abyme* of the operations of incongruity, burrowing away in what will become his evolutionary imagination; but also demonstrating that incongruity, like the Gothic, acts here as a visual aesthetic that accesses depth. In the only works to consider the effect of incongruity on scientific thinking, Arthur Koestler’s *Act of Creation* (1964), and later iterations of his key themes, he describes the effects of incongruity, or what he calls “bisociation”:

It is a sudden clash [or “delightful mental jolt”] between [...] two mutually exclusive codes of rules—or associative contexts [...] which produces the comic effect. It compels us to perceive the situation in two self-consistent but incompatible frames of reference at the same time; it makes us function simultaneously on two different wavelengths [...] (“Joking Apart” 328)

The functioning on two levels recalls the “double individuality” of Darwin’s M Notebook, but unlike Koestler’s historically generalist approach, it is central to my argument that incongruity’s

greatest impact can be understood as a specifically nineteenth century phenomenon. Learning a new grammar of Victorian incongruity will allow us to chart an important new taxonomy of affect in the period, particularly with regard to evolutionary thought (Brennan, Ahmed).

20. But to understand the significance of incongruity as depth is to appreciate firstly its excessive comic localism in scientific thinking; an internal self-reflexivity which figures in Darwin’s multiple accounts of “amusements” in the *Journal*, but also in Schopenhauer’s famously un-amusing joke in *The World as Will and Representation* Vol II about the “smile” caused by the sight of a parabola bisected by a line:

Bearing in mind that for an angle two lines meeting each other are required which when produced intersect each other; that the tangent, on the other hand, touches the circle only at one point but at this point really runs parallel to it; and if we thus have present in our mind the abstract conviction of the impossibility of an angle between the circumference of a circle and the tangent, but yet have such an angle visibly before us on paper, all this will easily make us smile (92).

While this has been derided for extreme aridity, what it also suggests, somewhat paradoxically, is the essential creativity of incongruity garnered by long periods of looking; a version of scientific looking that militates against the emptied out persona of Daston and Galison’s “mechanical objectivity.” A recent edition of the *Journal of Brain and Cognition* (2014) asked why a bird on an ear was more stimulating to a viewer than a bird in a bird-house.¹⁴ Yet the capacity to appreciate incongruity is, I propose, largely based on the visual accomplishment and experience of the observer; and not what is being observed. It is for this reason that, for example, the myopic Pickwick, despite “staring hard” at the cabman, failed to put, as it were, the cart before the horse. While Schopenhauer does freely acknowledge, in the example given above, that the spirit of the ludicrous is “feeble”, this model of studious subjectivity, not objectivity, is a valuable one, that I want to pursue in regards to the visual, ontological and phenomenological experience of incongruity in the *Journal*; one that has particular significance for Darwin’s interspecies imagination.

* * *

21. The key signifier of incongruity in the *Journal* (operating as a kind of visual snagging) is the word “amusement”: cognates of which appear over forty times. The *Oxford English Dictionary*

defines “amusement”, multiply as an “idle time-wasting diversion”, and also “recreation”, but increasingly, the word is modified by the Victorians and most interestingly, by Darwin himself. While “amusement” was often used as the antonym of “instruction” in the Useful Knowledge debates of the early to mid-nineteenth century, it bore for the blood-and-guts loving Georgians something of the meaning of “sport” (Rauch 1-21). W M Thackeray, for example, in 1855, bemoaned the loss of the “amusements” of his youth, referring to the harsher Georgian sports of badger baiting and fox hunting, which he complained had been “improved out of all existence” (“Four Georges” 377). Darwin, as partial Georgian but also proto-Victorian, uses “amusement” in a distinctively more progressive and definitively temporal sense than “sport”.

22. The word inheres a number of key points in observational time; beginning with the first laugh, an often involuntary response of finding something “amusing”—a visual economy of noticing which bears on the difference between expectation and reality. “Amusement” for Darwin, then, in this instance, is the height of an elater beetle’s springing jump (35), or how a Graspus crab craftily steals the fish of nesting sea-birds (10), or the “impetuous manner” in which a “heap” of basking seals “tumble into the water” (346) as Darwin’s boat goes by; or the dramatic manner of giant tortoises, who pull in their heads, hiss and “fall to the ground [...] as if struck dead” as he is walking past them (465). Mihaly & Isabella Csikszentimihalyi suggest that creative “flow” or “optimal experience” occurs as the subject becomes immersed in their world, losing all sense of time and ego (“The Flow Experience” 15-35). This occurs in a scene in January 1832 when Darwin is playing “cat and mouse” with a cuttlefish on the shores of the Atlantic.

This cuttlefish displayed its chameleon-like power both during the act of swimming and whilst remaining stationary at the bottom. I was much amused by the various arts used to escape detection used by one individual, which seemed fully aware that I was watching it. Remaining for a time motionless, it would then stealthily advance an inch or two, like a cat after a mouse; sometimes changing its colour: it thus proceeded, till having gained a deeper part, it darted away, leaving a dusky train of ink to hide the hole into which it had crawled. While looking for marine animals, with my head about 2 feet above the rocky shore, I was once more saluted by a jet of water [...] (7)

The mock contest with the cuttlefish stresses horizontality rather than verticality, culminating in the comic indeterminacy of Darwin presented here as losing. What is also noteworthy though is the nature of Darwin’s attention, pacing out time, second by second, as he remains momentarily “motionless”, and waits for the response and counter-response of the cuttlefish. A few lines later,

still hoping to catch sight of the cuttlefish after it has disappeared in a “dusky train of ink”, Darwin is to be found scoping out the coastline with his head “2 feet above the rocky shore” in search of the animal. It is at this moment that the cuttlefish, hidden behind rocks, takes his “revenge” and Darwin finds he is “saluted by a jet of water” (46).

23. But I want to linger on the bending figure of the laughing scientist at the scene of observation. For what this resembles is not the Cartesian fantasy of absolute detachment but rather more, the description of G H Lewes’s accounts of Dickens’s observation as “hallucination”: where an object, much studied, seems to loom out before the viewer, and take on a life of its own. As Lewes suggests:

[I]n no other perfectly sane mind [than Dickens’s] have I observed vividness of imagination so closely approaching hallucination [...] To Dickens revived images have the vividness of sensations; to him also created images have the coercive force of realities, excluding all control, all contradiction. What seemed preposterous, impossible to us, seemed to him simple fact of observation. When he imagined a street, a house, a room, a figure, he saw it not in a vague schematic way of ordinary imagination, but in the sharp definition of actual perception, all the salient details obtruding themselves onto his attention. [...] He seeing it thus vividly he made us see it [...] He presented it in such relief that we ceased to see it as a picture.“ (“Dickens in Relation to Criticism” 145)¹⁶

But then, sometimes, there is not much to differentiate this depiction of vividness from Darwin’s observational practice. At one point, for example, while travelling across St Cruz in Patagonia in December 1833, Darwin can be found lying on his back, waving his hands and feet in the air, attempting to attract the attention of a passing herd of grazing animals: “That [the guanacos] are curious is certain; for if a person lies on the ground, and plays strange antics [my italics], such as throwing his feet up in the air, they will almost always approach by degrees to reconnoitre him” (195-6).¹⁷ Here, there is a playful reciprocity about who is observing whom, with the llama-like guanaco, in Darwin’s description, tentatively approaching and showing as much curiosity in the foot-waving oddity before them as the naturalist does in them.

24. In another instance, much quoted by biographers, Darwin watches while a land iguana in the Galapagos buries itself into a hole, before going up to it and pulling its tail:

This animal when excavating its burrow, alternately works the opposite sides of its body. One front leg for a short time scratches up the soil, and throws it towards the hind foot, which is well placed so as to heave it beyond the mouth of the hole. The side of the body being tired, the other takes up the task, and so on alternately. I watched one for a long time, till half its body was buried; then I walked up and pulled it by the tail; at this it was greatly astonished, and soon shuffled up to see what was the matter; and then stared me in the face, as much as to say, “What made you pull my tail?” (470)

The tail yanking displays a playful vitality and larcenous mischief that helped make the *Journal* an unexpected publishing success in the 1840s, and since. Yet the question “What made you pull my tail?” signifies a moment of self-reflexivity in the *Journal*, one that is worth considering further, both in the light of the politics of research transcription, and in the wider context of scientific exploration narratives. As Milena Kozic observes, redacting any type of research data presents a number of methodological challenges and editorial choices (“Notes on Nothing” 60). The negotiations made during the writing-up process operate as a kind of theory in themselves (Ochs, “Transcriptions as Theory” 43-72) but they also veer—because of their essentially formative nature—between both representation and interpretation, requiring “selective re-contextualization” that highlights or obscures elements of the research interaction (Green et al. 268; Baldry & Thibault). The question that arises then, is not only what made Darwin pull the iguana’s tail—but by what emphases and relevancies did he construct a scientific narrative that included such instances?

25. It goes without saying that the lizard’s “question” is, in 21st century terms, scientifically inadmissible, and signifies one of many moments of Darwinian anthropomorphism in the *Journal*, the mental state attribution of animals as psychologically like himself, which operates as an outmoded nineteenth-century intellectual framework; one that falls into the category of “failed heuristics” or what the editors of *Anthropomorphism, Anecdotes and Animals* describe as “delightfully embarrassing” (427). Embarrassing or not, however, while “play cues” like tail-pulling might suggest this part of the text “need not be taken seriously”, they point rather more suggestively to an alternative logic—or rather, a *performative illogic*—in operation; one that reformulates Darwin’s research thinking through a dynamic process of laughing engagement with the world around him (McGhee, *Humour: Its Origin and Development* 1-20).

IV. Towards A Methodological Tickling

26. When Darwin discussed the “ludicrous” and the “ridiculous” in *The Expressions of the Emotions in Man and Animals* (1872), he would deploy the suggestive analogy of the “tickling” of the “mind” to discuss laughter’s effects on the thinking and feeling self: “The imagination is sometimes said to be tickled by a ludicrous idea; and this so-called tickling of the mind is curiously analogous with that of the body,” he notes (201). Tickling can be violent or it can be mild, it can cause all kinds of bodily excrescences and temporary mental incapacities, and even insanities, but, according to Darwin, it must also be experienced in a pleasurable state, or else, it becomes something else:

Laughter from a ludicrous idea, though involuntary, cannot be called a strictly reflex action. In this case, and in that of laughter from being tickled, the mind must be in a pleasurable condition; a young child, if tickled by a strange man, would scream from fear (201).

In addition to a lack of fear, a defining aspect of the mental and physical “tickle” for Darwin is that it cannot be self-inflicted. Theorizing that just as children cannot tickle themselves, so, says Darwin, a mind cannot be tickled by anything other than an external stimulus. And it is here that we see the cognitive potency in Darwin’s account: he underscores the instrumentality of the “ludicrous” and the “ridiculous”, specifically in terms of its power to engage, process and react to the intellectually novel:

From the fact that a child can hardly tickle itself, or in a much less degree than when tickled by another person, it seems that the precise point to be touched on must not be known; *so with the mind, something unexpected—a novel or incongruous idea which breaks through a habitual train of thought* [my italics]—appears to be a strong element in the ludicrous. (200)

The capacity of Darwinian laughter to “break through” habitual thinking is what I want to pursue further; deploying Michael J. Apter and K. C. P. Smith’s theory of telic and paratelic activity. In their important essay, “Humour and the Theory of Psychological Reversals” (1977), they distinguish between two models of subjectivity; the first, telic, is oriented towards a particular goal, with any other experience, like pleasure or laughter, taking secondary importance to the outcome of the activity. Against this, is paratelic activity, in which sensation and enjoyment are the most important part of any experience, with the idea of any eventual goal being subsidiary

(95-100). Taking both these purposive and non-purposive models, I want to consider two kinds of laughter in the *Journal*, re-deploying words from Darwin’s own vocabulary, “sport” and “amusement” as signifiers of the telic and paratelic laughter, respectively.

27. It is one of the notable features of the *Journal* that as well as regarding animals as subjects for enquiry, and also as objects of admiration— “the little owls of the Pampas [...] standing like sentinels” (82)—he also regards them as competitive quarry to be shot, or as food, beyond their status as potential specimens. Indeed, some of the most remarkable moments bear on its sudden shifts in viewpoint and orientation towards animals. Darwin talks admiringly, for example, about the South American agouti, a shy mammal that resembles a hare, which he observes, “generally produces two young ones at birth, which are brought forth within the burrow” (82). The language here, “brought forth”, poetically invokes the agouti’s burrow as something of a domestic idyll, and yet, in the very next line, the tone has shifted completely: “The flesh, when cooked, is very white: it is, however, rather tasteless and dry” (82). This sudden transformation in the animal’s status, from admired parent to lunch, unintentionally produces the kind of bleak humour that would find its way into Lewis Carroll’s *Through the Looking Glass* (1872) with its death jokes and concerns about being snuffed out—“Bang! just like a candle!” (*Looking Glass* ch.4). This unstable taxonomy of affect is also observable in one of the earliest scenes of the *Journal*, in Rio De Janeiro in 1832, when Darwin goes hunting with an “old Portuguese priest” and a “wild Brazilian youth” (*Journal* 32; Brennan 5). As Darwin describes, “the sport consisted in turning into the cover a few dogs, and then patiently waiting to fire at any animal that might appear” (32). The indiscriminate nature of Darwin’s hunting trip (“any animal”) is striking here but so is how the scene concludes: the shoot proves disappointing and produces little more than “some sundry small green parrots and a few toucans” (32), but during this same expedition, Darwin and his companions come across a large dead bearded monkey, shot the day before, which is discovered, rather gruesomely, still hanging upside-down by its prehensile tail in a tree. The monkey must be cut down and thuds cumbrously to the forest floor but the dead animal, suspended and supine, acts metonymically for one mode of looking (among many) in the *Journal*, where animals are treated as passive and inert signifiers through the prism of “sport”.
28. “Sport” also has comic dimensions and stands for some coercive, even exploitative, forms of looking—where Darwin, as the naturalist-circus master or whip-hand— instrumentalizes animals as two-dimensional signs, or stooges, to illustrate some particular feature of the world he is encountering: the remoteness of the seabirds’ world at St Paul’s Rock, where he imagines killing

“any number” of nesting boobies and noddies with his geological hammer (9); or the tameness of a hawk in the Galapagos, which he pushes off a branch with the muzzle of his gun (475); or the “hereditary instinct” of a fearful iguana when Darwin is repeatedly hurling it, “as far as [he is] able”, into the deep pool created by a retiring sea-tide. (468). Part of the investigation with the iguana involves exploring the nature of habitual and non-habitual thought—“fixed and hereditary instinct”—but it also becomes mechanically and even grimly repetitive (468).¹⁸ A similar instance of scientific explorers “besting” animals can be found in the ubiquitously caricatured anecdote of the Yorkshire taxidermist Charles Waterton, bare-handedly wrestling with a 15-foot Cayman, in order to take it home stuffed and unmarked to his country house in Wakefield. Such moments, as Victoria Carroll has argued in *Science and Eccentricity*, were increasingly a regular feature of the sensationalism of popular science in the 1820 and 1830s (Carroll 2).

29. Yet while many critics have attentively observed Darwin’s sense of wonder in the *Journal* (Amigoni, Levine, Beer, Schmitt, Browne), what is decidedly more difficult to taxonomize is these “lighter” moments, often considered as not quite part of scientific knowledge-making. Yet the reason why we treat these moments as essentially ornamental, or, as Nicholas Ridout calls them, “side affects”, rather than purposive, suggests a proclivity to think only in heroic terms about scientific creativity and the pursuit of knowledge (*Stage Fright* 160). Useful here is Connor’s assertion that:

Human beings have a deep narcissistic attachment to the act of thinking, which they sometimes think of as pure consciousness. They think that thinking something gives it the power of being thought about, even by proxy [...] but actually attention is distraction (“Mixed Bodies” 3).

The suspension of extrinsic self-awareness and attentive inattention that Connor posits is one that talks to the condition of dynamic and active thinking suggested by Darwin’s “unreason” that began this paper. But amusement also proffers an affective missing link to Daston and Galison’s account of scientific thinking in *Objectivity*, one that both challenges and also supplements their construction of the libidinally frigid mode of will-centred scientific looking that they argue emerged in the Victorian period (*Objectivity* 229). Distinguishing between the eighteenth century scientist who, as an enthusiastic and sensation-bound savant is overly subject to “beautiful” but “counterfeit” systems, they argue the emergence of a newly disciplined scientific self patrolled by “regulative ideals” propounded in Victorian biographies and hagiographies of scientists through

the nineteenth century (231). This battle between objectivity and subjectivity is staked out, like a “psychodrama” in scientific journals and biographies:

Both artistic and scientific personas spawned heroic myths, albeit complementary ones. The heroic artist was authentic, recreating the world in the image of the assertive and the indelible self. The heroic scientist was disciplined, discovering the world through work (*Objectivity* 246-7).

Yet Darwin’s decidedly un-heroic laughter posits a mode of engagement and attentive looking that does not easily fit into the emotional circuitry of increasingly prescriptive high Victorian mythology. But, like the “tickling” of the brain recounted in *Expressions*, this gelastic condition tells of a particular susceptibility to the world beyond the self, one that is neither intellectually off-duty nor less engaged in the scene of observation, but, as in the scene with the cuttlefish, *more* engaged in a state of cognitive and affective “arousal” (Smith and Apter 96). Significantly, however, Darwin’s paratelic laughter, far from consolidating the will of the Victorian scientist—as in *Objectivity*’s account—often figures the breakage of that will, suggesting the possibility of future reformulations.

30. For Darwin is, like Pickwick, surprisingly often, the comic bungler. Take the moment in Argentina, in July 1832, when, while out horse-riding and practising using an American bolas, he manages to lasso his own horse’s legs in front of laughing Gaucho cowboys:

One day as I was amusing myself by galloping and whirling the balls round my head, by accident the free one struck a bush; and its revolving motion being thus destroyed, it immediately fell to the ground, and like magic caught one hind leg of my horse; the other ball was then jerked out of my hand, and the horse fairly secured. Luckily he was a practised animal; and knew what it meant; otherwise he would probably have kicked until he had thrown himself down. The Gauchos roared with laughter; they cried that they had seen every sort of animal caught, but had never before seen a man caught by himself (51).

31. The “amusement” here where Darwin not only nearly unseats himself, but is also saved by the quick thinking of the horse, owes much to a distinctive and long-standing tradition in theatre based exclusively on failure and horseplay. In a compelling discussion of “fiasco”, a feature drawn from *commedia dell’arte*, in which clowns fail, fall, stumble and falter, Nicholas Ridout describes a state of “ludicrous collapse” in a theatre where the performer realizes, through a gradual escalation of laughter between the stage and audience, that he has “nothing to offer” (148). The British

comedian Tommy Cooper, as Ridout notes, in his ground-breaking study *Stage Fright, Animals, and Other Theatrical Problems*, made an entire career out of such flops, as the Magic Circle magician who could not “do” magic, and his stage performance (“the stumbling and aimless wandering, the irruption onto the scene of stage or floor managers and the barrage of incomplete, unfunny jokes and bungled punch lines”) recalls Darwin’s behaviour here (149).

32. Like Cooper, Darwin’s lack of “competence” on the horse is in danger of exposing the workings behind the façade, while the infectious giggling signals a potent state of hyper-permeability that becomes almost masochistic, causing him to lose his *amour-propre*. While there are undoubted homosocial implications to the way Darwin “catches himself” in front of the “roaring” cowboys, what is more striking here is Darwin’s apparent complicity, like Cooper’s, in his own subjective dismantling—his willingness to “queer” his own scientific text through laughter. Darwin’s joyous and epiphanic state, being “saved” by his horse, is productive of new kinships and affinities—the play community, as Johan Huizinga suggests, lasts long after the game is finished, but these textual embarrassments also adumbrate the way that body and mind are co-opted into new modes of thinking and un-thinking (*Homo Ludens*, chapter six). Darwin is again “unseated” on the Galapagos Islands, attempting to climb on the backs of giant tortoises.

I frequently got on their backs and upon giving a few raps on the hinder part of the shell, they would rise up and walk away; but I found it very difficult to keep my balance.
(465)

The comedy arises from the collision of timeframes between the zestful young scientist with new worlds to explore, and a story to uncover, and the cumbrous movement of antediluvian “monsters” from deep time being drafted—not necessarily unwillingly according to this account—into Darwin’s japes. Playfulness morphs into burlesque and self-mockery when, deploying grandiose gestures that ape the colonial panjandrum on his elephant, Darwin struggles to keep his balance and falls off. As Judith Halberstam comments in *The Queer Art of Failure*, not-winning “allows us to escape the punishing norms that discipline behaviour” leading, potentially, to an “ecstatic exposure” of power dynamics, which are “undermined from within” (3-5). In another mock-heroic failure, the ghosts of past assumptions and future methodologies enter the textual scene even before the laughter has subsided. At Port Desire, in Patagonia, in 1833, Darwin realizes that he has lost a rare specimen of bird—a particular species of petise—but then finds he has mistakenly eaten it for lunch:

When at Port Desire in Patagonia (lat.48) Mr Martens shot an ostrich; and I looked at it, forgetting at the moment, in the most unaccountable manner, the whole subject of the Petises, and thought it was the two-thirds grown one of the common sort. The bird was cooked and eaten before my memory returned. Fortunately, the head, neck, legs, wings, many of the larger feathers, and a larger part of the skin, had been preserved. From these a very nearly perfect specimen has been put together [...] (108-9)

While Darwin finds himself “stuffed” as a comedy farceur here, the humour stems from the confusion over taxonomies of bird as food and bird as find. Unlike the horse and bolas instances, or the fall from the giant tortoises, the collapse of Darwin as man of science here is not total—he does not quite depict himself picking bits of bird out of his teeth; but the humour is overcast by a certain neophyte shame. Indeed, what is striking is the atmosphere of almost self-betrayal as Darwin, in a tone of abject bathos, castigates his own vision and mind, as he remembered eating the bird: “I looked at it, forgetting at the moment, in the most unaccountable manner”. Laughter, here, as elsewhere, involves a comic effacement of Darwin’s autonomy and developing methodology, while the use of the word “unaccountable” suggests an alternative, and even secretive, economy at work, over which he is not fully in control. As Freud suggests, one of the features of a joke is that it feels original—as if it “occurred involuntarily” and came from nowhere (*The Joke and Its Relation to the Unconscious* 164). The post-lunch carnage is resolved, however, as Darwin retrieves the bones and painstakingly puts them back together before sending the skeleton of what would become a new classification, the *rhea darwinii*, back to Henslow in Cambridge (*Journal of Researches* 109).

33. But I want to connect Halberstam’s notion of “failure from within” to Ridout’s expansion of the term “fiasco”, deploying the work of Simon Bayly to consider further the possible research impetus of Darwin’s comedic lapses and effacements. “Fiasco”, explains Bayly, is a dramatic form derived probably from the seventeenth century archaic Italian glass bottle “Bologna”, which does not break if raised up very high in the air and dropped on the ground—but does break when some smaller objects are inserted into it, and then dropped (Bayly 22-3; Ridout 150). “Fiasco” had currency in the 1820s and 1830s as meaning a theatrical disaster but also operates suggestively to describe a form of embodied thinking that cracks “from within” in a process Bayly calls “auto-disintegration” (23):

With this phenomenological observation fiasco acquires a sense of a breaking up that is a breaking out. Weakness and fragility are revealed in a structure otherwise durable and resilient, happening from the inside out rather than from the outside in (23).

In “breaking up that is a breaking out”, the potency of fiasco in Darwin’s evolutionary thinking can be seen. For, in addition to the seriousness of his pursuits, the assiduity of his note taking, the breadth of disciplinary fields he traversed (from geology to anthropology to botany and physical sciences), and the inclusive nature of his writing to a heterogeneous audience, there are also the giggles, the physical pratfalls, the wobbles and the japes: and these add up to something. They are not, in Kant’s terms, “nothing” (161). And while historians of science, and biographers, and any number of general readers, have enjoyed and relished these stories merely as examples of charming and delightful anecdotalism, their influence can be seen as considerably more potent and far-reaching. In the gradual build and build of Darwin’s thinking, via a series of comic accretions and impedimenta, they re-focus Darwin’s curiosity, his scholarly attention and his methodology. Using his body as a testing ground, even a makeshift laboratory for his non-teleological thinking, Darwin moves fluently and fluidly between contrasting and incongruous comic modes: the heroic and the un-ideal, the purposive and the accidental, the epic and the trivial. Through the lexicon of fiasco, cracking the grand narrative of Biblical creation is not achieved with a mighty coup de grâce, but through a series of small, often seemingly incidental, but nonetheless meaningful internal reformations. As Bayly elaborates further:

[Fiasco] is not the result of the disastrous and spectacular impact of two solid bodies contacting each other via their external surfaces but rather of a process by which one, much smaller, body finds its way into the invaginated side of the other and encounters its inner surface (*Pathognomy of Performance* 23).

Laughter in the *Journal of Researches* provides the means through which Darwin “enters” his research world. It both acts as agent provocateur, the inciting factor, and provides the first crucial stages in Darwin’s later theorizing. It is the character of “amusement” to reformulate thinking that explains perhaps its surprising, even spectral, presence in the passage from Darwin’s *Autobiography*, when he first conceives his theory of transmutation:

In October 1838, that is, fifteen months after I had begun my systematic inquiry, I happened to read for *amusement* [my italics] Malthus on Population, and being well prepared to appreciate the struggle for existence which everywhere goes on from long-continued observation of the habits of plants and animals, it at once struck me under

these circumstances favourable variations would be preserved, and unfavourable ones to be destroyed. The result of this would be the formation of new species. Here, then, I had at last got a theory by which to work. (*Autobiography* 120)

34. Debates about eureka-ism or inductivism have dominated interpretation of this passage, but I want to suggest a slightly different focus. The language of “systematic inquiry” appears to work in contradiction to Darwin’s description of reading Malthus for “amusement”. While this suggests either the bleakest of ironies or else, the opposite, a desultory even dilatory engagement with his subject, the word appears decidedly odd, and perhaps even inappropriate, in this context. Stephen Jay Gould has complained that this scene, written years later in the *Autobiography*, is not quite accurate and does not tally with what is written in the notebooks of the 1830s (*The Panda’s Thumb* 64-7). Nonetheless, what is noticeable here is that Darwin, writing years after the event as an elder statesman of the scientific academy, unwittingly portrays one of the most powerful moments in his own intellectual life, and indeed that of the modern world, through that sense of the pleasurable breakage, break-through and re-assemblage conferred by incongruous “amusement”.

* * *

35. Back in London in 1838, Darwin conducted an unusual laughter experiment:

Looking at one’s face whilst laughing in glass and then as one ceases, or stops the noise, the face clearly passes into smiles – laugh long prior to talking, hence one can help speaking, but laughing involuntary (565, Transmutation Notebook N 6 qtd. in Rosenberg 137.)

Particularly noteworthy here is Darwin’s placidity in the face of his laughing reflection. A scene that elsewhere in Victorian writing might precipitate a crisis of self-division, is greeted by Darwin with equanimity, as he phlegmatically describes hearing the undifferentiated “noise” of his laughter recede. In place of Bakhtinian grimaces or uncanny musings, Darwin describes a “face that clearly passes into smiles.” The apparent transparency towards the potential stranger in the mirror is arresting. John D. Rosenberg’s reading of this passage notes a complete absence of the “self-objectification” and “self-enchancement” to be found in autobiographic forms (“Mr Darwin Collects Himself” 137). The act of staring at one’s own image, potentially “the defining act of narcissism”, as Rosenberg asserts—and the kind that saw Gwendolen Harleth kiss her own reflection in *Daniel Deronda* (1876)—is replaced here with an apparently singular act of self-

effacement; an affective lacuna that Rosenberg associates with cold-hearted scientific methodology (*Deronda* 13; Rosenberg 137). But while Rosenberg observes coolness, he is also scrupulous to observe that there is something of a contradiction in his own logic: that, even in later life, and despite Darwin’s own avowals to the contrary, he retained “intensity of feeling” (137). This leaves Darwin’s laughter caught between a methodological rock and a hard place. Can it really be the result of non-feeling rationalism, a dispassionate and purely objective engagement—but if so, where to place Darwin’s obvious enthusiasm and enduring pleasure? A crucial aspect of the scene here is, I think, that Darwin “laughs long” and that the laughter is “involuntary.” This is not a bloodless laugh. Rather, it suggests laughter as an alternative form of signification and meaning making in Darwin’s thinking, and in Victorian life, one that contains within it a profoundly intellectual, and indeed sympathetic, engagement with the world beyond the self.

Works cited

- Ahmed, Sara. *The Cultural Politics of Emotion*. Edinburgh University Press, 2004.
- Amigoni, David. *Colonies, Cults & Evolution: Literature, Science and Culture in Nineteenth-Century Writing*. Cambridge UP, 2007.
- . “Between Medicine and Evolutionary Theory: Sympathy and Other Emotional Investments in Life Writings By and About Charles Darwin.” *After Darwin: Animals, Emotions and the Mind*. Edited by Angelique Richardson. Rodopi, 2013.
- “Amusement n. 2. & 5”. *OED Online*. Oxford University Press. June 2018. www.oed.com/view/Entry/6790/Accessed 12 July 2018.
- Andrews, Malcolm. *Dickensian Laughter: Essays on Dickens and Humour*. Oxford UP, 2013.
- Apter, Michael J, & K.C.P. Smith. “Humour and the Theory of Psychological Reversals”. *It's a Funny Thing, Humour*. Edited by A.J. Chapman and H. C. Foot. Pergamon Press, 1977.
- Ayala, Francisco J. “Darwin and the Scientific Method”. *PNAS* Vol 106 (Supplement 1): June 15, 2009: 10036-10039.
- Bakhtin, Mikhail. *Rabelais and His World*. 1968. Translated by Helene Iswolsky. Indiana UP, 1984
- Baldry, Anthony & Paul J. Thibault, editors. *Multimodal Transcription and Text Analysis: A Multimedia Toolbook and Coursebook*, Equinox, 2006.
- Barlow, Nora. *The Autobiography of Charles Darwin 1809-1882*. Collins, 1958.
- Bayly, Simon. *A Pathognomy of Performance*. Palgrave, 2011.
- Beer, Gillian. *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth Century Fiction*. Cambridge UP, 1983.
- . “Darwin's Reading and Fictions of Development.” Edited by David Kohn. *The Darwinian Heritage*. Princeton UP, 1985. 543-588.
- . “Four Bodies on the Beagle: Touch, Sight and Writing in a Darwin Letter”. *Open Fields in Scientific Encounter*. Oxford UP, 1996, 13-30.
- . “Translation or Transformation? The Relation of Literature and Science”. *Open Fields in Scientific Encounter*. Oxford UP, 1996, 173-195.
- . “Writing Darwin's Islands: England and the Insular Condition”. *Inscribing Science: Scientific Texts and the Materiality of Communication*. Edited by Timothy Lenoir. Stanford UP, 1996. 119-140.
- . *Alice in Space: The Sideways Victorian World of Lewis Carroll*. Chicago UP, 2016.
- Berger, Peter, L. *Redeeming Laughter: The Comic Dimension of Human Experience*. Walter de Gruyter & Co, 1997.

- Bergson, Henri. "Laughter: An Essay on the Meaning of the Comic." *Comedy*. Edited by Wylie Sypher. The Johns Hopkins UP, 1956.
- Bevis, Matthew. *Comedy: A Very Short Introduction*. Oxford UP, 2013.
- Billig, Michael. *Laughter and Ridicule: Towards a Social Critique of Humour*. Sage Publications, 2005.
- Bishop, Elizabeth. *Prose, Poems and Letters*. Edited by Robert Giroux & Lloyd Schwartz. Library of America, 2008.
- Bourdieu Pierre. *The Logic of Practice*. Stanford UP, 1990.
- Brennan, Teresa. *The Transmission of Affect*. Cornell UP, 2004.
- Brown, Daniel. *The Poetry of Victorian Scientists: Style, Science and Nonsense*. Cambridge UP, 2013.
- Browne, Janet, E. *Voyaging*. Princeton UP, 1996.
- Carroll, Lewis. *Through the Looking Glass*. Macmillan and Co, 1872.
- Carroll, Victoria. *Science and Eccentricity: Collecting, Writing and Performing Science for Early Nineteenth-Century Audiences*. Pickering and Chatto, 2008.
- S T Coleridge. "Lecture IX, "On the Distinctions of the Witty, the Droll, The Odd and the Humorous." *The Literary Remains of Samuel Taylor Coleridge*. vol 1. Edited by Henry Nelson Coleridge. William Pickering 1836.
- Connor, Steven. "Art Criticism and Laughter: Terry Eagleton and Aesthetics." Accessed February 18, 2017.
- . "How to Get Out of Your Head: Towards A Philosophy of Mixed Bodies." Accessed February 20, 2017.
- Csikszentmihalyi, Mihaly. "The Flow Experience and Its Significance for Human Psychology." *Optimal Experience: Psychological Studies of Flow in Consciousness*. Edited by Mihaly & Isabella Csikszentmihalyi. Cambridge UP, 1988.
- Dames, Nicholas. *The Physiology of the Novel: Reading, Neural Science and the Form of Victorian Fiction*, Oxford UP, 2007.
- Darwin, Charles. *The Beagle Letters*. Edited by Frederick Burkhardt. Cambridge UP, 2008.
- . *Journal of Researches into the Geology and Natural History of the Various Countries Visited by H. M. S. Beagle, Under the Command of Captain Fitzroy, R.N, From 1832 to 1836*. Henry Colburn, 1839.
- . *The Expression of the Emotions in Man and Animals*. John Murray, 1872.
- . *The Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*. John Murray, 1859.

- . *The Descent of Man, and Selection in Relation to Sex*. John Murray, 1871.
- Darwin, Charles and Paul H Barrett. *Charles Darwin’s Notebooks 1836-1844*. Cambridge UP, 1987.
- Darwin, Francis, editor. *Life & Letters of Charles Darwin Including an Autobiographical Chapter*. 2 vols. John Murray, 1887.
- Darwin, Francis & A. C. Seward, editors. *More Letters of Charles Darwin: A Record of his Work in a Series of Hitherto Unpublished Letters*. John Murray, 1903.
- Daston, Lorraine & Peter Galison. *Objectivity*. Zone Books, 2007.
- Dawson, Gowan. *Darwin, Literature and Victorian Respectability*. Cambridge UP, 2007.
- Dickens, Charles. *Pickwick Papers*. Ed. James Kinsley. Oxford World’s Classics, 1986.
- . *Sketches by Boz Penguin Classics, 1995*.
- Eliot, George. “German Wit: Heinrich Heine.” *Selected Essays, Poems and Other Writings of George Eliot*. Edited by A.S. Byatt & Nicholas Warren. Penguin, 1990.
- . *Daniel Deronda*. Edited by Graham Handley. Oxford World’s Classics, 2009.
- . *Impressions of Theophrastus Such*, 1879. Edited by Nancy Henry. University of Iowa Press, 1994.
- . *Scenes from Clerical Life*. Edited by Thomas A. Noble. Oxford World’s Classics, 2009.
- Endersby, Jim. “Sympathetic Science: Charles Darwin, Joseph Hooker, and the Passions of Victorian Naturalists” *Victorian Studies* 51.2 (2009): 299-320
- Foucault, Michel. *The Order of Things*. Routledge Classics, 2001.
- Freud, Sigmund. *The Joke and Its Relation to the Unconscious*. Edited by John Carey. Translated by Joyce Crick. London: Penguin, 2002.
- Gould, Stephen Jay. *The Panda’s Thumb: More Reflections in Natural History*. W. Norton & Co, 1980.
- Griffiths, Devin. *The Age of Analogy: Science and Literature Between the Darwins*. Johns Hopkins UP, 2016.
- Green, Judith, Maria Franquiz & Carol Dixon. “The Myth of the Objective Transcript: Transcribing as A Situated Act”. *TESOL Quarterly* 13:11 (1997): 172-6
- Haight, Gordon H. *George Eliot: A Biography*. Oxford UP, 1968.
- Halberstam, Judith. *The Queer Art of Failure*. Duke UP, 2011.
- Haraway, Donna. *When Species Meet*. University of Minnesota Press, 2008.
- Hegel, G.W.F. *Aesthetics. Lectures on Fine Art*. Trans. T.M. Knox, 2 vols. Clarendon Press, 1975.
- Hipple, Walter. *The Beautiful, The Sublime and the Picturesque in Eighteenth-Century Aesthetic Theory*. Southern Illinois UP, 1957.
- Hobbes, Thomas. *Human Nature and De Corpore Politico*. Edited by J.C.A Gaskin. Oxford World’s

Classics, 2008.

Huizinga, Johan. *Homo Ludens: A Study of the Play Element in Culture*. Beacon Press, 1955.

Kaiser, Matthew. *The World in Play: Portraits of A Victorian Concept*. Stanford UP, 2011.

Kant, Immanuel. *Critique of Judgement*. Edited by Nicholas Walker. Oxford World’s Classics, 2008.

Keats, John. *Letters of John Keats*. Edited by Robert Gittings. Oxford UP, 1970.

Keynes, Randal. “Darwin on 42nd Second Street: Randal Keynes, Darwin’s Great Great Grandson on the Origins of Creation”. *Wall Street Journal Online* accessed April 18, 2018.

Keynes, Richard D. “From Bryozoans to Tsunami: Charles Darwin's Findings on the Beagle.” *Proceedings of the American Philosophical Society*. Vol. 147, No. 2 (June 2003): 103-127

Kierkegaard, Søren. *Concluding Unscientific Postscript to the Philosophical Crumbs*. Edited & Translated by Alexander Hannay. Cambridge UP, 2004.

Koestler, Arthur. *The Act of Creation*. Arkana Press, 1964.

---. “Joking Apart.” *Bricks to Babel: Selected Writings with the Author’s Comments*. Pan, 1982.

Kozic, Milena. “Notes on Nothing: Seinfeld and the ‘Affect Machine’”. Diss. King’s College London, 2013.

Lecerle, Jean-Jacques. *Philosophy of Nonsense: Intuitions of Victorian Nonsense Literature*. Taylor & Francis, 1994.

Levine, George. *Darwin Loves You: Natural Selection and the Re-Enchantment of the World*. Princeton UP, 2006.

---. *Dying to Know: Scientific Epistemology & Narrative in Victorian England*. Oxford UP, 2007.

---. *Darwin and the Novelists: Patterns of Science in Victorian Fiction*. University of Chicago Press, 1991.

Lewes, George, Henry. “Dickens in Relation to Criticism”. *Fortnightly Review* XVII Feb, 1872:141-154.

Lippitt, John. “Humour and Irony in the *Postscript*” *Kierkegaard’s Concluding Unscientific Postscript: A Critical Guide*. Edited by Rick Furtak. Cambridge UP, 2010.

Locke, John, *An Essay Concerning Human Understanding*. Dent, 1964.

McGhee, Paul. E. *Humour: Its Origin and Development*. W. H. Freeman, 1979.

Metz, Nancy, Aycock. “Dickens Plumbs the Hampstead Ponds. Chapter One in Its Scientific Contexts.” *Dickens Quarterly*. Vol 32. No.4, Dec 2015: 283-292.

Mitchell, Robert W., Nicholas S. Thompson, and H. Lyn Miles, editors. *Anthropomorphism, Anecdotes and Animals*. State of University Press, 1997

Ochs, Elinor. “Transcriptions as Theory”. *Developmental Pragmatics*. Edited by Elinor Ochs & B.

Schiefflin. Academic Press, 1979.

Oden, Thomas, C, editor. *The Humour of Kierkegaard: An Anthology*. Princeton UP, 2004.

Olsen, Kirby. *Comedy After Postmodernism: Rereading Comedy from Edward Lear to Charles Willeford*. Texas Tech UP, 2001.

Rauch, Alan. *Useful Knowledge: The Victorians, Morality and the March of Intellect*. Duke UP, 2001.

Remy, Florence. “Incongruent Object/Context Relationship in Visual Scenes: Where Are They Processed in the Brain?” *Brain and Cognition*. Vol 84 Issue1, Feb 2014: 34-43.

Ricoeur, Paul. *The Rule of Metaphor: The Creation of Meaning in Language*. Translated by Robert Czerny. Routledge, 2003.

Ridout, Nicholas. *Stage Fright, Animals and Other Theatrical Problems*. Oxford UP, 2006.

Ryan, Vanessa. *Thinking Without Thinking in the Victorian Novel*. Johns Hopkins University, 2013.

Rosenberg, John D. “Mr Darwin Collects Himself.” *An Elegy for an Age: The Presence of the Past in Victorian Literature*. Anthem Press, 1994. 119-138.

Schmitt, Cannon. *Darwin and The Memory of the Human: Evolution, Savages and South America*. Cambridge UP, 2013.

Schopenhauer, Arthur. *The World as Will and Representation Vol II*. Translated by E. F. J. Payne. Dover Publications, 2000.

Thackeray, W. M. *The Works of William Makepeace Thackeray*. Vol. xviii. P.F Collier, n.d.

Von Humboldt. Alexander. *Personal Narrative of a Journey to the Equinoctial Regions of the New Continent*. Edited by Jason Wilson. Penguin, 1996.

Warhol, Robyn.” It is of Little Use for Me to Tell You”: George Eliot’s Narrative Refusals.” *A Companion to George Eliot*. Edited by Amanda Anderson & Harry E Shaw. Blackwell, 2013.

Wickberg, Daniel. *The Senses of Humour: Self and Laughter in Modern America*. Cornell UP, 1998.

White, Paul. “Darwin Wept: Science and the Sentimental Subject”. *Journal of Victorian Culture* 16.2 (2011): 195-213.

Yeo, Richard. *Defining Science: William Whewell and Public Debate in Early Victorian Britain*. Cambridge University Press, 1993.

¹ An elliptical phrase which is mentioned, but not elaborated on, in S T Coleridge’s 1836 Lecture IX “On the Distinctions of the Witty, the Droll, The Odd and the Humorous.” See Henry Nelson Coleridge, *The Literary Remains of Samuel Taylor Coleridge*, vol. I, William Pickering, 1836.

² I am indebted to Peter Berger for his translation, and for also his incisive discussion of the difference between the “comic” and the “ridiculous” in Hegel’s thinking. See Peter L. Berger, *Redeeming Laughter: The Comic Dimension of Human Experience*. Walter de Gruyter & Co, 1997, chapter two.

³ While, for example, George Henry Lewes, famously professed to admiring George Eliot’s “fun” in her first work of fiction “The Sad Fortunes of the Reverend Amos Barton” (1858), it was her “pathos” that he ultimately plumped for (Haight 212). Both Eliot and Lewes “cried together” over scenes of Milly Barton’s deathbed, a marital act of affective communion that is tacitly invoked when Eliot published the short story in her collection of novellas, *Scenes of Clerical Life* (1858). Her narrator directly addresses her readers with the words, “I wish to stir your sympathy with commonplace troubles—to win your tears for real sorrow” (46). The emphasis on “real sorrow” connotes sympathy’s peculiar grammar of affect. As Beer comments in *Darwin’s Plots*, Victorian novelists, like Dickens and Gaskell, “sought to physically affect their reader: we are to laugh and weep as we read [...] and to be physiologically disarranged by the reading experience” (*Darwin’s Plots* 41).

⁴ In Daniel Brown’s *The Poetry of Victorian Science: Style, Science and Nonsense*, Cambridge UP, 2013, he observes the correlation between the ludic values of nonsense and that of research science speculation in the mid-Victorian period, particularly for the field of physics, which, he asserts, is “hemmed by nonsense” with its “imperative for discovery and novelty” (37).

⁵ See also Gillian Beer’s discussion of mathematical creativity in *Alice in Space: The Sideways Victorian World of Lewis Carroll*, University of Chicago Press, 2016, particularly chapter two, “The Faculty of Invention: Games, Play and Maths.”

⁶ And indeed, an entry of three days later shows how Darwin uses this physical experience to develop out his theory as he observes that a “child gains habit <<or trick>> more easily than man, so may animal obtain it far more easily, in proportion to the variableness or power of intellect” (*Charles Darwin’s Notebooks* 539).

⁷ While the term was coined in 1833 at a meeting of the British Association for the Advancement of Science by William Whewell (in opposition to “artist”), it didn’t gain currency till the end of the century.

See Richard Yeo, *Defining Science: William Whewell and Public Debate in Early Victorian Britain*, Cambridge UP, 1993, 110-11.

⁸ Vanessa, L Ryan’s *Thinking Without Thinking in the Victorian Novel*, Johns Hopkins UP, 2012, has valuable discussions on related matters, particularly “unconscious cerebration” (29-58) and also, absent mindedness (59-104).

⁹ See also Sandra Gregory’s discussion of Darwin’s paper on the parallel roads of Glen Roy in *Charles Darwin, Geologist*. Cornell UP, 2006, 285-290.

¹⁰ See also Dickens’s burlesque on the British Association for the Advancement of Science in “The Mudfog Papers” (1837-8), serialised in *Bentley’s Miscellany*.

¹¹ Nancy Aycock Metz, “Pickwick Plumbs the Hampstead Ponds,” 284.

¹² Dickens spoofs the BAAS as the “Mudfog Association for the Advancement of Everything” with Professors Snore, Doze and Wheezy as presiding aegises.

¹³ I am grateful for Lippitt’s illuminating article “Humour and Irony in the *Postscript*” in *Kierkegaard’s Concluding Unscientific Postscript: A Critical Guide*, 149-169; and also Rick Anthony Furtak’s Introduction (1-5) to the same edition. See also Thomas C Oden, *The Humour of Kierkegaard: An Anthology*. Princeton UP, 2004 (10-12, 77-79).

¹⁴ See Florence Remy. “Incongruent Object/Context Relationship in Visual Scenes: Where Are They Processed in the Brain?” *Brain and Cognition*. vol 84. Issue1, Feb 2014: 34-43.

¹⁶ The relation between what Lewes calls “vividness” and “hallucination” depends here on how far rationality tempers the imagination: both in relation to “revived” images, which translate to modern-day “flashbacks”, but which, in Lewes’s account of Dickens, are rendered in a highly physicalized way; and also with “created” images, where an abstract thought is visualised, but, is summoned forth in Dickens’s prose, as if with the force of concrete reality. (“Dickens in Relation to Criticism” 145). For further accounts of Lewes’s diverse attitudes to Dickens’s work, see Nicholas Dames, *The Physiology of the Novel: Reading, Neural Science and the Form of Victorian Fiction*, Oxford UP, 2007, 182-5.

¹⁷ Members of Darwin’s crew also perform “strange antics” with the guanaco too.

¹⁸ While this is not intended to be humorous, it does resemble Henri Bergson’s later memorable definition of the comic, as “something mechanical encrusted on the living” (*Laughter* 84). See Michael Billig’s engaging discussion of the limitations of Bergson’s idea of comedy based on “bodily clumsiness.” (*Laughter and Ridicule* 111-138).