

## Essay

# The pharmakon of ‘If’: working with Steven Shapin’s *A Social History of Truth*

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### Editor’s note

Steven Shapin’s *A Social History of Truth: Civility and Science in Seventeenth-Century England* (*SHOT*) (1994) is perhaps the most frequently cited articulation of constructivist history of science. Building on *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (1985), co-authored with Simon Schaffer, it established gentlemanly honour and trust as the basis of epistemological certainty in the early modern period – and arguably beyond. *SHOT* was its generation’s counterpunch to scientific hubris: the experimental method is not self-evidently correct, it argued, but was developed as a specific, historical solution to a social problem.

Since the publication of *SHOT*, the science wars have hotted up and cooled down again. The planet, meanwhile, has continued to warm ineluctably, and professionally sceptical historians of science of the 1990s – Bruno Latour prominent amongst them – have been obliged to make their peace with the facts of climatology. The history of science is no longer principally thought of as some kind of antidote to scientism – but has not entirely settled into a new mode, either.

The past three years have been a rollercoaster of facts and fictions, trust and mistrust, packed with enough history and futurology to fill a hundred years, never mind the quarter-century since *SHOT* was published. They provide the backdrop and the motivation to revisit Shapin’s monograph on the twenty-fifth anniversary of its publication, to ask how our historiography has developed since his crucial insights, and what Shapin and his historical offspring might have to say in these heated days. *BJHS* invited Michael Wintroub, winner of the 2018 BSHS Pickstone Prize for best scholarly book for his *The Voyage of Thought: Navigating Knowledge across the Sixteenth-Century World* (2017), to address these questions. Though his *Voyage of Thought* pushes social

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epistemology further back in time and further afield than Restoration England, and makes it stranger, we can nevertheless discern a tangible connection between the questions it grapples with in following a voyage of French merchants to Sumatra in 1529 and those interrogated by Steven Shapin in his groundbreaking 1994 work on trust and truth in the gentlemanly culture and scientific practice of seventeenth-century England.

**Abstract.** Whilst the ‘local culture’ of experimental natural philosophy in seventeenth-century England drew on ‘resources’ supplied by the gentlemanly identity of men like Robert Boyle, this culture found much of its distinctiveness in a series of exclusions having to do with faith, gender and class. My concern in this essay is less with these exclusions, and the distinctions they enabled, than with their surreptitious returns. Following from this, as a heuristic strategy, I will try to understand how Boyle and Co. used and reacted to, repressed and cathected, that which they sought to exclude. By charting the movements of exile and return across the contested frontiers of class, gender and faith, truth and lies, authenticity and performance, we can, I believe, fruitfully complicate our understandings of both the social history of truth, and the social history of our ‘post-truth’ predicament.

Touchstone:<sup>[1]</sup> O sir, we quarrel in print, by the book, as you have books for good manners. I will name you the degrees: the first, ‘the retort courteous’; the second, ‘the quip modest’; the third, ‘the reply churlish’; the fourth, ‘the reproof valiant’; the fifth, ‘the countercheque quarrelsome’; the sixth, ‘the lie with circumstance’; the seventh, ‘the lie direct’. All these you may avoid but the lie direct, and you may avoid that, too, with an ‘if’. I knew when seven justices could not take up a quarrel, but when the parties were met themselves, one of them thought but of an ‘if’, as: ‘If you said so, then I said so’. And they shook hands and swore brothers. Your ‘if’ is the only peacemaker: much virtue in ‘if’.

William Shakespeare, *As You Like It*, Act 5, scene iv

My gut tells me more than anybody else’s brain can ever tell me.

Donald Trump, 28 November 2018

### Once truth has a history ...

Steven Shapin published *A Social History of Truth (SHOT)* twenty-five years ago to acclaim and controversy. Not least among the splashes it made was a series of vitriolic exchanges that appeared in the pages of *Isis* that charged Shapin with breaching the etiquette proper to the historian’s craft. Shocking as the fury of these imbroglios on the frontiers of discipline and identity were, they were not long-lived, fading in the face of *SHOT*’s widely favourable reception, and Shapin’s well-deserved reputation as a scrupulous and erudite scholar. Recently, a more oblique critique of Shapin’s enterprise has emerged, implicating him – and his scholarly fellow travellers – in an anything-goes relativism that has undermined the very foundations of the subject, Truth, that he purports to study. And not in a figural academic sort of way, but on the ground and in practice. Indeed, according to this view, once truth has a history, a social location, an ideology, a context, it is no longer Truth at all.<sup>2</sup>

1 A touchstone: ‘a test, a trial; a criterion or reference point by which something is assessed, judged, or recognized’. *OED*.

2 Shapin anticipated this critique, as he said, ‘Reality cannot serve its justificatory function unless the relevant culture recognizes it as separate from, and set above, the behavior of those who report about it and

We have, it seems, because of books like Shapin's, become irredeemably tribal, living our lives next to one another whilst living in villages worlds apart, with different experiences, different facts, and different truths. Dickens could write this novel, this history, this experimental report. We are credulous, and we are suspicious to a sceptical fault; we believe that vaccines cause autism, and we believe in studies that prove they don't; we believe the world was created by God in six days six thousand years ago, and in the data of geochemists armed with mass spectrometers that establish its age at 4.567 Ga (giga-annums); we believe that climate change is a hoax and we are convinced that it's only a matter of years before there's no turning back.

Call it what you will, confirmation bias, pig-headedness, or pervasive anti-intellectualism; evidence, it seems, no longer has the power to persuade and convince. Demarcation criteria have evaporated before our very eyes. One truth appears as good as another, one spokesperson as credible as the next, leaving science powerless to compel or enlist belief. Speed, repetition and ubiquity; the charisma of the speaker; or extreme – and very loud – scepticism with regard to alternatives, these are what make and unmake truth, not evidence produced by legions of white-coated experts.

Could the authority of science always have been a sham, a conspiracy of so-called 'elites' seeking to drown out perfectly valid 'alternative' facts?<sup>3</sup> Perhaps the third of millennials who aren't sure that the Earth is round have reason to doubt: the truth is no longer what it used to be.<sup>4</sup> 'Fake news'. 'A Hoax'. 'Sad'.<sup>5</sup> Latour, it seems, was right, we have never really been modern. How else are we to explain the daily reports of witch hunts?<sup>6</sup> Or the alarming frequency of warnings that we are living in the end times?<sup>7</sup>

Aside from ascribing immense transformative power to the work of scholars like Shapin, such a view surely mistakes description for causality. If guilty of anything, it's of being too sanguine that shared belief in the credibility of experts, in experience, and in the authority of institutions, would win out in a world filled with less opaque and sexier alternatives. Dreaming in our hearts of a linear teleology of progress, we wake up instead riding the ever-abbreviated swings of a pendulum being drawn ineluctably into the orbit of what Richard Hofstadter has called our paranoid style: the power of the 'good' story, the viral meme, the conspiracy theory, the slogan and the strong man.<sup>8</sup> Truth, as we are daily reminded, is not about facts and experience, but about

constitute our knowledge of it. That is why, as I noted at the outset of this book, there is such intense resistance to the very idea of a social history or sociology of truth'. Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England*, Chicago: The University of Chicago Press, 1994, pp. 350–351.

3 Kellyanne Conway, *Meet the Press*, 22 January 2017, at [www.youtube.com/watch?v=VSrEEDQgFc8](http://www.youtube.com/watch?v=VSrEEDQgFc8).

4 Rudy Giuliani, *Meet the Press*, 19 August 2018, at [www.youtube.com/watch?v=CljsZ7lgbtw](http://www.youtube.com/watch?v=CljsZ7lgbtw).

5 Tweet by Donald Trump, 13 June 2017, [https://twitter.com/realDonaldTrump/status/874576057579565056?ref\\_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E874576057579565056&ref\\_url=https://%3A%2F%2Ffew.com%2Ftv%2F2017%2F06%2F27%2Fdonald-trump-fake-news-twitter%2F](https://twitter.com/realDonaldTrump/status/874576057579565056?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E874576057579565056&ref_url=https://%3A%2F%2Ffew.com%2Ftv%2F2017%2F06%2F27%2Fdonald-trump-fake-news-twitter%2F).

6 See [www.nytimes.com/2017/06/06/magazine/how-did-witch-hunt-become-the-complaint-of-the-powerful.html](http://www.nytimes.com/2017/06/06/magazine/how-did-witch-hunt-become-the-complaint-of-the-powerful.html).

7 See [www.un.org/en/sections/issues-depth/climate-change/index.html](http://www.un.org/en/sections/issues-depth/climate-change/index.html).

8 Richard Hofstadter, 'The paranoid style in American politics', *Harper's Magazine*, November 1964, pp. 77–86.

the gut, about feeling, about knowing in the heart, what Stephen Colbert has called ‘truthiness’: ‘the quality of seeming or being felt to be true, even if not necessarily true’.<sup>9</sup>

It’s not just the heart that’s at the heart of truth, of course, but also an almost boundless will to power. The senior Bush 2 adviser (said to be Karl Rove) put this in its starkest form: ‘People like you’, he said to the journalist interviewing him,

are still living in what we call the reality-based community. You believe that solutions emerge from your judicious study of discernible reality. That’s not the way the world really works anymore. We’re an empire now, and when we act, we create our own reality. And while you are studying that reality – judiciously, as you will – we’ll act again, creating other new realities, which you can study too, and that’s how things will sort out. We’re history’s actors, and you, all of you, will be left to just study what we do.<sup>10</sup>

Perhaps Rove owes as much to the *Ficciones* of his favourite writer, Jorge Luis Borges, as to his own hubris.<sup>11</sup> His words, however, also describe well the plot of *SHOT*, with Robert Boyle playing the part of the ‘empire-building’ Rove, and Shapin taking on the role of the humble academic who judiciously studies him.<sup>12</sup>

### Exclusions’ ghosts

With an empirically born science whose neutrality was assured by the strict segregation of human interest and desire from the realm of facts, the tribe of Boyle forged an empire. Yet empires, as Borges (if not history) teaches us, fray at the edges and rot from the inside. A decade before the publication of *SHOT*, *Leviathan and the Air-Pump* warned that the settlement Boyle had helped found was beginning to unravel. ‘We have written’, Shapin and his co-author, Simon Schaffer, explain at their book’s end,

about a period in which the nature of knowledge, the nature of the polity, and the nature of the relationships between them were matters for wide-ranging and practical debate. A new social order emerged together with the rejection of an old intellectual order. In the late twentieth century that settlement is, in turn, being called into serious question. Neither our scientific knowledge, nor the constitution of our society, nor traditional statements about the connections between our society and our knowledge are taken for granted any longer. As we come to recognize the conventional and artefactual status of our forms of knowing, we put ourselves in a position to realize that it is ourselves and not reality that is responsible for what we know. Knowledge, as much as the state, is the product of human actions. Hobbes was right.<sup>13</sup>

9 See [www.salon.com/2017/01/09/kellyanne-conway-wants-people-to-look-into-donald-trumps-heart-not-whats-come-out-of-his-mouth](http://www.salon.com/2017/01/09/kellyanne-conway-wants-people-to-look-into-donald-trumps-heart-not-whats-come-out-of-his-mouth). ‘Truthiness’ was Merriam-Webster’s 2006 word of the year.

10 Ron Suskind, ‘Faith, certainty and the presidency of George W. Bush’, *New York Times Magazine*, 17 October 2004.

11 See [www.vanityfair.com/news/2008/02/proust\\_rove200802](http://www.vanityfair.com/news/2008/02/proust_rove200802).

12 This, in any case, seems to be the judgement of Kurt Anderson, who labels his witch’s brew of ‘post-positivists, poststructuralists, social constructivists, post-empiricists, epistemic relativists, cognitive relativists, descriptive relativists’ as useful idiots of the extreme right. See his ‘How America lost its mind’, *The Atlantic*, September 2017. For Bruno Latour’s admission of culpability see ‘Why has critique run out of steam? From matters of fact to matters of concern’, *Critical Inquiry* (2004) 30(2), pp. 225–248.

13 Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Princeton, NJ: Princeton University Press, 1988, p. 344.

The irony, of course, is that we appear to be just catching up with something Hobbes understood over four hundred years ago, begging the question whether the seventeenth-century settlement was ever anything more than arrogance, credulity, or faith. Indeed, maybe Boyle – in forging an empire in the best Rovian sense – was right too; as good Borgesians, however, none of us should be surprised that this world – this settlement – could ever be more than a provisional, temporary, bound-to-run-down-and-fall-apart kind of thing. What intrigues is how the localization of the loser in this story – the bad-mannered Mr Hobbes – has distracted us from the manifold ways that the social, cultural and epistemic worlds that contributed to his recognition of the ‘conventional and artefactual status of our forms of knowing’ also deeply touched Robert Boyle’s search for a ‘settlement’. *SHOT*’s anthropology serves as a corrective in this sense, focusing our attention on the culture from which Boyle was able to solve the tautological riddle that entangled social power and epistemic authority. Indeed, how could they be entirely reliant upon one another, whilst seeming to be entirely separate at the same time?

For Latour, the mutual exclusion of politics from science, and science from politics, was the lynchpin of modernity. Writing in 1991 he sketches out his view of the settlement:

Boyle is creating a political discourse from which politics is to be excluded, while Hobbes is imagining a scientific politics from which experimental science has to be excluded. In other words, they are inventing our modern world, a world in which the representation of things through the intermediary of the laboratory is forever dissociated from the representation of citizens through the intermediary of the social contract.<sup>14</sup>

Latour, however, was perhaps too parsimonious in his critique. Given the prestige and honour we traditionally accord to founders, in this case Hobbes and Boyle, it is little wonder that he focused on the borders separating (Boylean) science from (Hobbesian) politics. But it is well known that founding fathers are not always the most savoury or stable of characters. Moreover, they rarely act alone (though that’s one of the stories most frequently told about them); they have many human and non-human antecedents and enablers that live and make cultures that are far more diffuse and complicated than the judicious studies that scholars write about them. Settlements are all about making and policing frontiers, but borders are never secure, no matter how high the walls or strict the immigration quotas; ambassadors, refugees and tourists aside, there are always illegal, undocumented, unsanctioned and clandestine border crossings.

Of course, the political and the scientific worlds were entangled, despite understandings to the contrary, but so too were myriad other exclusions across many other supposed divides. Thus, while experimental natural philosophy might have drawn on resources supplied by the gentlemanly identity of men like Boyle, this culture found much of its distinctiveness in a series of exclusions having to do with faith, gender and class. Shapin certainly recognizes this, as evinced not only by his careful treatment of Boyle’s ‘invisible technicians’ and his analysis of the social and epistemic exclusion of women, but also with regard to his close attention to the complexities of the historical

14 Bruno Latour, *We Have Never Been Modern*, Cambridge, MA: Harvard University Press, 2012, p. 27.

worlds he describes.<sup>15</sup> Having said this, my concern here is less with these exclusions, and the distinctions they enabled, than with their surreptitious returns. In this respect, a social history of truth, rather than documenting the building of walls and the enactment of embargoes, might also consist in charting translations back and forth across these putative frontiers.

Following from this, as a heuristic strategy, I think it would be interesting to try to understand how Boyle and Co. used and reacted to, repressed and cathected, that which they sought to exclude. By charting the movements of exile and return across the contested frontiers of class, gender and faith, we can perhaps fruitfully complicate our understandings both of truth and of truthiness, of matters of fact and of matters of the heart. Put another way, by taking care to investigate the sociology of truth and the anti-rationalism of the gut together as integrally connected in the making and enacting of gentlemanly culture and the culture of experimental natural philosophy, we can push Shapin's insights regarding the settlement further to explicate not only how it came into being, but how it has begun to fall apart.

### The touchstone of 'If' in the land of 'Elsewhere'

The culture of civility from which the settlement emerged was mapped onto a series of exclusions based upon judgements of relative dependency and freedom. For Boyle and Co., the economic circumstances of the lower classes rendered them ignorant and credulous – they were 'slaves to their senses'; they thus lacked the independence of mind either to understand or to speak credibly about matters of truth.<sup>16</sup> Similarly, women were entirely subservient, quixotic beings, incapable of acting without the support and guidance of men; thus they too were marked by their dependency.<sup>17</sup> Gentlemen, on the other hand, had wealth, education and virtue. As such, they possessed the independence requisite of credible tellers of the truth. This was to become, says Shapin, the defining feature of a gentleman's identity. 'A gentleman's word was his bond', and to doubt or challenge it was 'to give him the lie'.

To give the lie was among the gravest insults imaginable to a gentleman's honour; it bordered on the terroristic in its capacity to infect an already volatile world with

15 With regard to the exclusion of women, see Shapin, *op. cit.* (2), pp. 86 ff. and 355–408. Gentle culture, Shapin explains, 'was a set of resources put to work in specific actions, in specific settings, and for specific purposes. Given the flux and complexity of practical social action in early modern society, the categories indicated by truthfulness and lying were widely qualified, graded, and supplemented. This was a culture that possessed a vocabulary for speaking about veracity and mendacity that was as rich as it was ambiguous and contested'. See Shapin, *op. cit.* (2), p. 103.

16 Shapin, *op. cit.* (2), for example pp. 93–95.

17 As Shapin puts this, 'Just as the ideal gentleman's integrity and independence were used to account for and enjoin his truthfulness, so the unreliable truthfulness of others was pervasively referred to their constrained circumstances. Those whose placement in society rendered them dependent upon others, whose actions were at others' bidding, or who were so placed as to need relative advantage were for these reasons deemed liable to misrepresent real states of affairs – what they were actually thinking, what their intentions were with respect to future action, how matters stood in the world. Their word might not be relied upon'. Shapin, *op. cit.* (2), p. 86.

uncertainty.<sup>18</sup> For Shapin, the social practices associated with civility and civil conversation vaccinated against these dangers, building roadblocks to confrontation, and redirecting the potential violence associated with certain knowledge into polite conversation amongst gentlemen; that is, into a setting where the stakes were found in the continuance of courteous talk rather than the adjudication of winners.<sup>19</sup> For men of the Boyle tribe, talk was to be diffident, charitable and tolerant; it was aspirationally organized against dogmatism and certainty, and directed instead toward what Touchstone, the fool, in Shakespeare's *As You Like It*, called the 'Ifs' of the social world of men and – by Boyle's extension – the natural world of things.<sup>20</sup> It is worth quoting Shapin at length:

Gentlemanly society well understood the risks of disputing members' fact-relations. To say that a man's relation of empirical experience was faulty was to say that he was a liar, perpetually damaged, or incompetent. Discrepant fact-reports had to be handled with extreme care. Precisely because practices historically adapted to protect the reliability of testimony and the integrity of the moral order existed as institutions in gentlemanly society, these practices were powerful resources for an enterprise which sought to build philosophical order on factual foundations. They simply had to be relocated from the gentlemanly to the philosophical setting. Moreover, the very gentlemanly practices which protected factual relations lightened the epistemic and moral load placed upon theoretical entities. Different theoretical schemes of nature might account for the same factual order. It was not to be expected that men could attain that certainty about theories that they could about facts. Accordingly, a characteristic mark of English natural-philosophical enterprise was its vigilant protection of the factual domain combined with injunctions to speak modestly, diffidently, and doubtfully about the domain of the theoretical. It was philosophically and morally possible to do so, because *the foundations of knowledge and of members' moral order were located elsewhere*. For the English scientific community, as for ... the society of early modern gentlemen, *there was 'much virtue in If'*.<sup>21</sup>

The colonists sent out by the gentlemanly culture of Boyle could only found their 'settlement' of 'If' in the natural world with the support of the mother country of 'Elsewhere' located in the social world of gentlemen. Armed with well-rehearsed rituals of civility, as found, says Touchstone, in 'books for good manners', experimentalists like Boyle could build their settlement.<sup>22</sup>

This culture, however, was riven with tensions, ambiguities and uncertainties; it was a thing in the making, traduced and transformed by all manner of trading, and all manner of returns – from duty-free shops, dark alleys and black markets, to ambassadors, immigrants, smugglers, pirates and refugees. Indeed, 'Elsewhere' had to come from 'somewhere' too. It grew in the borderlands where gentlemen and experimentalists

18 Shapin, op. cit. (2), pp. 106–110.

19 Tasso puts this well: 'the man who enters into discussions at court with a desire to win by any means and against everyone, without consideration of time or place, is more attracted by intellectual glory than by courtly honour. For not only in debate but in every activity, the courtier must compete by yielding'. Torquato Tasso, *Tasso's Dialogues* (trans. C. Lord and D. Trafton), Los Angeles and Berkeley: University of California Press, 1982, p. 183. Also see Shapin, op. cit. (2), p. 113; and John Harwood, *The Early Essays and Ethics of Robert Boyle*, Carbondale: Southern Illinois University Press, 1991, p. xxxviii.

20 Shapin, op. cit. (2), for example p. 121.

21 Shapin, op. cit. (2), p. 125, my emphasis.

22 Shapin, op. cit. (2), pp. 113–114.



encountered those they sought to exile: women, the ‘lower’ orders, dogmatic schoolmen, raving enthusiasts and nature herself.

### The order of lies

Boyle was a man of his time; in many ways, he can’t simply be put in the ‘box’ of gentle culture. He was wealthy – among the wealthiest men in England – but he was also the seventh son of a robber baron whose noble ancestors were, quite literally, works of fiction.<sup>23</sup> Not all gentlemen were alike; a gentleman could be a gentleman by birth, by (chivalrous) deed, by education or by money.<sup>24</sup> These ‘types’ of gentility were often mixed, but even so, there was a clear hierarchy that distinguished a gentleman who could trace his family history into the distant and venerable past and the more recent parvenu. With ‘the accelerating and at times uncontrolled recruitment of new men to the gentry’, however, etiquette loosened these distinctions, allowing for the translation of mean parentage into gentility through acts of valour and virtue.<sup>25</sup> The prescriptive aspirations of the gentle documented in books of courtesy and politesse aimed to provide solutions to ease this transition by creating a language by which to navigate a complex and rapidly changing social world.

Civility (and the kinds of learning associated with it) worked to moderate and redirect the violence of older noble traditions towards a more diplomatic and politic game of words that aimed (as an ideal) at the continuance of civil conversation amongst like-minded gentleman. This social settlement, however, was anything but settled. Indeed, gentle status, if was to be had, still had to be proven, in this case by the touchstones of erudition, learning, wit and manners – that is, by the ability to parlay written and spoken signs into the distinction of credibility.<sup>26</sup>

Words, however, were not always to be trusted; as Feste in Shakespeare’s *Twelfth Night* said to his mistress Viola, they ‘are grown so false, I am loath to prove reason with them’.<sup>27</sup> Nor, perhaps, could they prove an effective touchstone for social status. Indeed, words could be bought, learned, rehearsed and recited. The studied deployment of the ‘flowers’ and ‘schemes’ of rhetoric, like the wearing of fine clothing or the performance of stylized manners, might suggest that so-called gentlemen were actually imposters

23 Nicolas Canny, *The Upstart Earl: A Study of the Social and Mental World of Richard Boyle First Earl of Cork 1566–1643*, Cambridge: Cambridge University Press, 1982, pp. 42–43. See Shapin, op. cit. (2), pp. 132–133.

24 For example Shapin, op. cit. (2), p. 64.

25 Shapin, op. cit. (2), pp. 58–63 ff.

26 Indeed, for every gentlemanly member of the early Royal Society whose family lineage could be traced back generations, such as John Aubrey, George Berkeley and William Cavendish, there were men like William Petty, the son of a clothier; Abraham Hill, the son of a merchant; Elias Ashmole, the son of a saddler; Issac Barrow, the son of a linen draper; John Wilkins, the son of a goldsmith; and Thomas Sprat, the son of a poor parish curate.

27 William Shakespeare, *Twelfth Night or What You Will*, Cambridge: Cambridge University Press, 2003, Act 3, scene i: 20–21.



(counterfeits), or as Castiglione characterized them, ‘untowardly Assheades, that through malapertness thinke to purchase them the name of a good Courtier’.<sup>28</sup>

Writers of books of courtesy, more often than not, doubled down on the border they drew between truth and the lie, continuously hammering home the point that dishonesty was discrediting, while truthfulness was the defining quality of a gentleman’s honour.<sup>29</sup> At the same time, these writers also explicitly provided explications and examples of social behaviour that could be imitated, enacted, played and performed. As Touchtone said, ‘O sir, we quarrel ... *by the book*’.<sup>30</sup>

This was the express purpose of works of courtesy and good manners – to teach, mould, reform and transform readers into gentlemen. The gentleman was to be – like the books he read – a collection of dispositions, pre-scripted clichés, tropes, maxims and rules that could inform his social improvisations.<sup>31</sup> Clement Ellis summed this up nicely in his *The Gentle Sinner*: ‘You may call him [the Gentleman] a Volume of *Methodicall Errataes* bound up in a *gilt Cover*, and his onely commendation is this, that his *disorders* seem to be *orderly*; and his *Errors* not *Casual* but *Studied*’.<sup>32</sup> Indeed, who was to say that the lie well told was not a lie, that authenticity could not be feigned, that truth was not simply a successful performance? ‘Most Men are the contraries to that they wou’d seem’, said the Restoration playwright William Wycherley.<sup>33</sup> Or as Philip Stubbes put it in his *Anatomy of Abuses*, it is ‘verie hard to knowe, who is noble, who is worshipfull, who is a gentleman, who is not ... This is a great confusion & a general disorder, God be merciful vnto vs’. Or, as Ellis succinctly put it, ‘To give you My sense of the *Gentleman* in a word, He is, *I know not what*’.<sup>34</sup>

What kind of settlement was this? It seems that the ‘gentlemanly practices’ developed to ensure moral order were dangerously inadequate to the task. Or were they? For all the stress on honesty and truth held between the covers of the guidebooks to the land of ‘If’, the troubled borders distinguishing them from lies and counterfeits were perpetually in

28 Baldassare Castiglione, *The Book of the Courtier, From the Italian of Count Baldassare Castiglione: Done into English by Sir Thomas Hoby, Anno 1561*, London: David Nutt, 1900, p. 41. ‘Malapertness’: impudent, bold or clever (saucy) speech; it also referred to expertise (pert/expertus).

29 ‘The practical task taken up by the courtesy literature was, on the one hand, to enjoin the gentleman not to lie or dissimulate, to remind him of the consequences of doing so, to inform him of the cost of impugning the veracity of other gentlemen’s relations, and, on the other, to situate the injunction not to lie in a system of generally understood and approved ethical principles regulating the happy and virtuous life and justifying the gentle condition’. Shapin, op. cit. (2), p. 70.

30 Shapin, op. cit. (2), p. 114, my emphasis.

31 As Anne Bryson, *From Courtesy to Civility: Changing Codes of Conduct in Early Modern England*, Oxford: Oxford University Press, 1998, p. 224, astutely observed, ‘The notion of gentlemanly “society” as a fluid world of potentially competitive individuals, whose harmonious coexistence must be secured by “convention”, was already encoded in the theory and practice of seventeenth-century “civility” at the time when political theorists began to extend this model of association to society as a whole. From the evidence of writing on manners, it developed at least partly as a response and a solution to the problem posed by ethical unease about the emptiness of the proliferating “ceremonies” which upheld the social order’. Could it have been that writers of court literature were ‘Hobbesian’ (*avant la lettre*)?

32 Clement Ellis, *The gentle sinner, or, Englands brave gentleman characterized in a letter to a friend both as he is and as he should be*, Oxford: Printed by Henry Hall, for Edward and Iohn Forrest, 1660, p. 16.

33 William Wycherley, *The Country Wife*, London: Printed for Thomas Dring, 1675, p. 8.

34 Ellis, op. cit. (32), 9.

dispute. These frontier wars were a valuable resource in making the settlement precisely because of their constant threat to undermine it. Put another way, solutions to problems of social order were the problems that needed to be solved.<sup>35</sup>

### Honest dissimulation and the glow worm

The defining principle of genteel culture was not truth; it was the tension between truth and the lie. Francis Bacon, for example, while pointing out the immorality of dissimulation, notes its practical necessity: ‘the best Composition, and Temperature of a man’, he said, ‘is to have *Opennesse* in Fame and Opinion; *Secrecy* in Habit; *Dissimulation* in seasonable use; And a Power to faigne, if there be no Remedy’.<sup>36</sup> The pretense that dissimulation might only be employed ‘seasonably’ was for many problematic. Indeed, the ‘If’ of tolerance might easily swing charitable civil discourse into the self-serving hypocrisy of the flatterer. Guazzo’s *Civil Conversation*, for example, rather than denying, ignoring or attacking this tension, welcomed it, elevating dissimulation to the status of a prudential virtue, as ‘all persons to the intent to avoide contention, and to bee acceptable in companie, sooth one an other, not onelie by speaking, but by holding their peace, and seeming to consent to other mennes sayings’.<sup>37</sup>

There was real danger here. The learned and performative aspects of elite identity skated a precarious frontier between respectability and fraud. Explicit border-patrol exercises extolling the truth and condemning the lie were paralleled by their qualification, as the hard edges distinguishing one from the other were softened and blurred by invocations to charitableness, *sprezzatura*, modesty and diffidence. Even so, some openly acknowledged – and embraced – the divide between dissimulation and authenticity. Guazzo, for example, explicitly argued for the importance of feigning and dissimulation, especially with regard to flattery, which, in his opinion, was what made the world go round: ‘hee, which should take flattery out of the worlde, should take away al humanitie and curtesie’.<sup>38</sup> Torquato Accetto took this cognitive dissonance to symphonic levels in his treatise on ‘honest dissimulation’ (*Della dissimulazione onesta*); dissimulation was,

35 Bryson, op. cit. (31), pp. 241–242, makes a similar point: ‘The achievement and enactment of gentlemanly solidarity in the reproduction of an exclusive social world in court and city demanded an “urbane” accommodation to others of like status. But the world of “civil conversation” was also the milieu of competition for prestige and reputation, where the gentleman had constantly to maintain, protect, and enhance his status in defensive or assertive social display. Manners which referred to a “civil” hierarchy and a harmonious social order had also to be vehicles for the individual’s efforts to assert honour and to navigate a highly competitive society. Such tensions were manifest in the irony and cynicism which accompanied the proliferation of social ceremonies and compliments. They also meant that ideals of civility were double-edged in their relation to political order’.

36 Francis Bacon, *The Essayes Or Counsels, Civill and Morall* (ed. M. Kiernan), Oxford: Oxford University Press, 2000, p. 22.

37 Stefano Guazzo, *The ciuile conuersation of M. Stephen Guazzo* (tr. Barth. Yong), London: Thomas East, 1586, 34r.

38 Guazzo, op. cit. (37), 34v.

for him, a synonym of 'If' insofar as it was tasked with 'preserving virtue by concealing truth'.<sup>39</sup>

Yet the mask veiling this tension was difficult to maintain. As Giovanlorenzo Malpiglio in Tasso's well-known treatise *On the Court* admitted, 'I think that it will be very difficult for me to seem to be what I am not and to hide what I am'.<sup>40</sup> This kind of uncertainty is, *pace* Goffman, characteristic of social interaction in general, but this was especially so amongst the socially mobile of early modern England. Robert Boyle's self-conscious and extreme gentlemanly rectitude was perhaps an artefact of this tension.<sup>41</sup> After all, his own father was the veritable personification of the new man in a culture that valued men who were not made but always were.<sup>42</sup>

Boyle's father, Richard, 1st Earl of Cork, was a rapacious thief and unscrupulous manipulator who made his fortune in the colonization of Ireland, rising from a penniless adventurer to become one of the wealthiest men in England. As his contemporary, Thomas Wentworth, 1st Earl of Strafford, said of him, he was 'never known to deliver one truth'.<sup>43</sup> The psychosocial instabilities balanced by gentlemen like Boyle must have been difficult indeed.<sup>44</sup> Surely, Boyle's comments on a glow worm in his *Occasional Reflections* speak to the prison of elite sociability where he found himself:

And as though this Worm be lodg'd in a Crystalline Prison, through which it has the Honour to be gaz'd at by many Eyes, and among them, by some that are said to shine far more in the Day than this Creature do's in the Night; yet no doubt, if he could express a sense of the Condition he is in, he would bewail it, and think himself unhappy in an excellency, which procures him at once Admiration and Captivity, by the former of which he does but give others a Pleasure, while in the latter he himself resents a Misery.<sup>45</sup>

The mask worn by the gentleman was moulded into an artful and discreet display of authenticity capable of giving the lie to the accusation that identity was, or ever could be, merely a performance. 'Tolerance', in this respect, might be construed, simply, as an absolute and unproblematic correspondence between performance and identity. The mask is who one is. Just as often, however, performance was left unacknowledged, disguised or repressed. To call it out was to risk far more than death by duel. It is thus not surprising that these stakes were raised most explicitly in hyperbolic and satirical terms. Courtesy literature grew in this tension, as both a symptom and a solution.

<sup>39</sup> See J.H. Johnson, *Venice Incognito: Masks in the Serene Republic*, Berkeley and Los Angeles: University of California Press, 2017, p. 89.

<sup>40</sup> Tasso, *op. cit.* (19), p. 175.

<sup>41</sup> On the 'new men' see Bacon, *op. cit.* (36), pp. 27–31.

<sup>42</sup> See, for example, Shapin, *op. cit.* (2), p. 147: 'he who possessed gentility by birth was free of the necessity of laboring to secure it'.

<sup>43</sup> Canny, *op. cit.* (23), p. 16.

<sup>44</sup> See, for example, Boyle's 'unself-conscious condemnation of the purchase of titles' quoted in Shapin, *op. cit.* (2), p. 133 n. 14. As Shapin points out, 'despite his father's pedigree, Boyle saw no reason to dispute the role played by blood and birth in producing the circumstances in which gentility might be expressed'. Shapin, *op. cit.* (2), p. 146. For a different view see Michael Hunter's perceptive comments, *Robert Boyle, 1627–91: Scrupulosity and Science*, London: Boydell & Brewer, 2000, p. 62.

<sup>45</sup> Robert Boyle, *Occasional Reflections upon Several Subjects. Whereto is premis'd A Discourse About such kind of Thoughts*, London: W. Wilson for Henry Herringman, 1665, p. 155.

The conventions of genteel culture betrayed a keen awareness of the performative nature of the social, and the realities of power, birth and wealth. Appearance, contrivance, rehearsed and practised social displays of belonging and distancing, these were the artifices catalogued and naturalized by books of courtesy and manners lived by Boyle and judicially studied by Shapin. To give the lie to them was to give the lie to social order itself. It was this lack of surety – the insecurity, ambiguity and anxiety about status, truth and authority – that provoked the intrepid settlers that Shapin describes to set off into the social fiction of artful dissimulation and the tolerance of the ‘If’ as well as into the empirical world of particulars.

Though on the surface ‘trust in truth-telling was understood to be the cement of society, [and] untruthfulness was seen as a potent social solvent’, it was also to be found in the unspoken truth and the unacknowledged lie that maintained and regulated social order.<sup>46</sup> Montaigne seems to have understood the stakes quite well, locating in the solution offered by elite sociability an escalation of the instability it sought to avoid. As he put it,

Truth for us nowadays is not what is, but what others can be brought to accept: just as we call money not only legal tender but any counterfeit coins in circulation. Our nation has long been accused of this vice ... you could say that at the present time it is for them a virtue. People train themselves for it and practise for it as for some honoured pursuit: dissimulation is one of the most striking characteristics of our age. So, I have often reflected on what could have given birth to our scrupulously observed custom of taking bitter offence when we are accused of that vice which is more commonplace among us than any of the others, and why for us it should be the ultimate verbal insult to accuse us of lying. Whereupon I find it natural for us to protect ourselves from those failings with which we are most sullied. It seems that by resenting the accusation and growing angry about it we unload some of the guilt; we are guilty, in fact, but at least we condemn it for show.<sup>47</sup>

Hobbes’s insights regarding ‘the conventional and artefactual status of our forms of knowing’ were, for most, too terrible and too dangerous to acknowledge openly. For Montaigne, roadblocks to potential conflict – the ‘Ifs’ of social and epistemic dissimulation – were responsible for ratcheting up the very tensions they sought to circumvent. Confidence in the harmony between inner virtue and its social expression could only be maintained as a negative counter to an alternative of deceit, fraud and artifice. Elite sociability thus provided, at best, a partial solution, a mask, to cover over the tensions that its own contradictions provoked. This mask exposed its wearers to the ever-present possibility of losing face, raising the stakes in terms both of the possibility of ‘giving the lie’ and of Boyle’s feint – the crafting (sublimation?) of his donned visage

<sup>46</sup> Shapin, op. cit. (2), p. 10. As George Mackenzie put it in his 1656 *Moral Essay Preferring Solitude*: ‘What an ugly and ungentle Vice Dissimulation is, seeing that he is no Gentleman who would not choise rather to die, or starve, then to be thought false’. Quoted in Shapin, op. cit. (2), p. 85. Regarding the unacknowledged lie, on the other hand, the plot of Machiavelli’s *Mandragola* comes to mind.

<sup>47</sup> Michel de Montaigne, *The Complete Essays* (tr. and ed. M.A. Screech), London and New York: Penguin Books, 1960, ‘On Giving the Lie’, p. 756.

into the formulation of a rhetoric of anti-rhetoric, modesty, and charitable humility – a selfless-self worthy to blazon the Royal Society’s motto: *nullius in verba*.<sup>48</sup>

### Womanly words and manly deeds

The cultured display of gentlemanly civil conduct traced fine – and fraught – lines between truth and affectation, manly deeds and the ‘flowers’ of rhetoric, the virility of the knight and the effeminacy of the fop. Boyle embodied genteel culture; he also embodied many of its contradictions. He was the subject of the fawning praise of his contemporaries, but he was also mercilessly mocked and ridiculed – e.g. by Shadwell, Butler, Behn and Swift – for his vain virtuosity, his pretensions to useful knowledge, his affected mannerisms and his credulity.<sup>49</sup> The persona of the ‘Dul and Melancholick’ gentleman, the elaborate and mannered rituals that comprised his bearing and his speech, wavered Boyle, and gentlemen like him, toward the women that they were so concerned to exile from the possibility of speaking credibly about the truth. Indeed, the painted masks and the coloured ceremonies associated with the gentleman had a distinctly female face.

Women, it was generally acknowledged, were the motive force behind the civilization of the barbaric men of ‘Elsewhere’ – softening the hard edges of their animality, and teaching them, through their example, manners, politesse and civility. As Swift said, ‘If there were no other use in the conversation of ladies, it is sufficient that it would lay a restraint upon those odious topicks of immodesty and indecencies, into which the rudeness of our northern genius is so apt to fall’.<sup>50</sup> The danger of going native in the land of ‘If’, of identifying too closely with the colonial agents of feminine civility, was ever-present and greatly feared. The affected and studied pomp of the gentleman as represented in the plays of Wycherley, Etherege, Shadwell and Congreve, or made popular in court and anti-court literature, frequently transgressed the borders separating gentlemen from hermaphroditic courtiers. This danger haunted elite sociability. As Castiglione warned, a courtier should never be

so softe and womanishe as manye procure to haue, y<sup>e</sup> do not onely courle the hear, and picke the browes, but also paumpre themselues in euery point like the most wanton and dishonest women in the worlde: and a man would thinke thē in goyng, in standing, and in all their gestures so tender and feint, that their members were ready to flee one from an other, and their woordes they pronounce so drawningly, that a man would weene they were at that instant yielding vp the ghost: and the higher in degree the men are they talke withall, the more they

48 As Shapin aptly puts this, ‘a selfless self was a free actor in the world of knowledge; all others counted as constrained’. Shapin, *op. cit.* (2), for example pp. 182, 191, 222–223.

49 John Evelyn’s effusive praise comes to mind; see Shapin, *op. cit.* (2), p. 192. Shapin acknowledges that for many ‘Restoration court wits and satirists Boyle was a figure of fun’. See Shapin, *op. cit.* (2), p. 193.

50 Jonathan Swift, *Hints Toward an Essay on Conversation*, London, 1712, p. 237. See Keith Thomas, *In Pursuit of Civility: Manners and Civilization in Early Modern England*, Waltham, MA: Brandeis University Press, 2018, p. 36; Michele Cohen, *Fashioning Masculinity: National Identity and Language in the Eighteenth Century*, London and New York: Routledge, 1996, p. 41; Philip Carter, *Men and the Emergence of Polite Society, Britain 1660–1800*, London and New York: Routledge, 2014, pp. 5–7; and G.J. Barker-Benfield, *The Culture of Sensibility: Sex and Society in Eighteenth-Century Britain*, Chicago: The University of Chicago Press, 1996.

vse suche facyons. These men, seing nature (as they seeme to haue a desire to appeare and to bee) hath not made them women, ought not to be esteamed in place of good women, but like common Harlottes to be banished, not onely out of prynces courtes, but also oute of the companie of Gentlemen.<sup>51</sup>

The characteristics distinguishing traditional elite identity – the hunt, the duel, valour in war, manly acts of daring and violence – were in the process of being translated into the ability to manipulate – and appropriately display – written and spoken signs.<sup>52</sup> Words were the tools of the trade for upwardly mobile new men. However, both affect and rhetoric provoked accusations of effeminacy. One mask covered the other, concealing behind the obvious dangers of crossing the border between new men and old nobles the dangers of crossing the frontiers dividing men from women. Women, and the dispositions associated with them, posed the profound threat of feigned duplicity.<sup>53</sup> Insofar as this was the case, the commonplace maxim ‘Words are Womanly, Deeds are Male’ would need to be transformed to align better with new notions of elite status to become instead, ‘A Gentleman’s Word is His Bond’.<sup>54</sup>

The modulation of elite identity amongst old nobles and new men, country gentleman and courtiers, sword-wielding rakes and fopping fops, was also a modulation amongst violence and effeminacy, masculine action and womanly learning. As Richard Braithwaite said in *The English Gentleman*, ‘For who knows not (if he know any thing) how the Gentry of this age, through a depraved effeminacie, must be in custome with the fashion, to purchase him the title of *Gentleman*’.<sup>55</sup> It took more than money to solidify one’s move up the ladder of social hierarchy; one needed fashion, panache and carefully studied, and chosen, words. Such social climbing through decorous wit, politesse and erudition could be viewed as a sign of status achieved; it could also be construed as a cunning performance. That’s why it was so important to draw a line firmly in the sand between rhetoric and what Glanville described as the ‘manly spirit and genius, that playes not tricks with words’.<sup>56</sup>

51 Castiglione, op. cit. (28), p. 52.

52 I describe a similar process in sixteenth-century France in ‘Civilizing the savage and making a king: the Royal Entry Festival of Henri II (Rouen, 1550)’, *Sixteenth Century Journal* (1998), 29, pp. 467–496; and in *A Savage Mirror: Power, Identity and Knowledge in Early Modern France*, Stanford, CA: Stanford University Press, 2006.

53 See, for example, Patricia Parker, ‘On the tongue: cross gendering, effeminacy, and the art of words’, *Style* (1989), 23(3), pp. 445–465; Michael Wintroub, ‘Words, things and a womanly king’, *French Historical Studies* (2005) 28(3), pp. 387–413; as Joseph Swetnam said, ‘All beasts by man are made tame, but a womans tongue will neuer be lame; it is but a small thing, and seldome seene, but it is often heard, to the terror and vtter confusion of many a man’. Joseph Swetnam, *The araignment of leuud, idle, froward, and vnconstant women*, London: Printed by George Purslowe for Thomas Archer, 1615, p. 40.

54 Gabriel Meurier, *Thresor de sentences dores et argentes*, Cologne: François Le Febvre, imprimeur genevois, 1617, pp. 139–140; and Shapin, op. cit. (2), p. 65.

55 Richard Braithwaite, *The English gentleman containing sundry excellent rules or exquisite observations, tending to direction of every gentleman, of selecter ranke and qualitie; how to demeane or accommodate himselfe in the manage of publike or private affaires*, London: Printed by Iohn Haviland, 1630, n.p.

56 Joseph Glanville, address to the Royal Society, in *Scepsis Scientifica: Or, Confest Ignorance, the Way to Science; in an Essay of the Vanity of Dogmatizing and Confident Opinion*, London: Kegan Paul, Trench & Co., 1885, p. lxxv. Also see Ellis, op. cit. (32), p. 114.

Women were widely understood to be unreliable. They were, in the view of the fencing master Joseph Swetnam, ‘vngratefull, periured, full of fraud, flouting and deceit, vnconstant, waspish, toyish, light, sullen, proud, discourteous and cruell’.<sup>57</sup> As such, they didn’t so much need to be civilized, as they needed to be carefully policed. Similarly, truth was in need of protection from the pernicious effects of feigned civility. Words needed to be recalibrated as masculine deeds; they needed to be moderated, stripped of ornamentation, invigorated and made manly.<sup>58</sup> To lie was to betray oneself as being womanly – a painted performer, a dissimulator, an artificial man, an effeminate fraud. *Sprezzatura*, modesty, plain-speaking and humility distinguished the truly gentle from the foppish, the effeminate, the parvenu. At the same time, the supposed humility of speech and action, the ‘If, if you will, of gentlemanly civil conversation, was intricately entangled with the exclusionary discourse of modesty that was applied to gentle women as a disciplinary condition of their inclusion in polite society. Hannah Woolley, for example, gives advice to her gentle woman that might easily have been taken by Boyle’s experimental philosopher:

This Modesty or Civility we speak of, take it according to its truest acceptation, is little else but Humility; which being well practis’d by Persons of Quality, is sufficient to stamp an everlasting impress on them of Virtue and Civility. And this Humility consists not only in a moderate and submissive opinion of our selves, but in preferring the satisfaction and commodity of other persons before our own; and that so ingeniously, first, by not provoking or disobliging any one; to be of this disposition, is to be not only esteemed modest, but good-natur’d; the benefit that will redound to you hereby, may incite and encourage you to the practise of this shining-Virtue: for as there is nothing will render any one more insupportable, and lessen estimation among all, than Insolence and Vanity; so nothing recommends more strongly to the good opinion and affection of all, than affability and submission.<sup>59</sup>

The gentleman just couldn’t catch a break; even whilst living modestly in the man cave of his laboratory, it seems that women were lurking behind every corner of his psyche.<sup>60</sup> In response, gentlemen weren’t shy either about their misogyny or their powers of denial. This was surely at the heart of what Thomas Sprat, in his *History of the Royal Society*, called the ‘Masculine Arts of Knowledge’, just as it was a defining feature of the modesty exemplified by Robert Boyle’s pious virtuosity.<sup>61</sup>

57 Swetnam, op. cit. (53), p. 16.

58 The reformation of elite male culture on the basis of new forms of mannered and literate exclusivity cannot be viewed as distinct from processes of colonization by which women were ‘effeminized’, negatively as deceitful and cunning performers, positively as modest, chaste and timid.

59 Hannah Woolley, *The gentlewomans companion; or, A guide to the female sex containing directions of behaviour, in all places, companies, relations, and conditions*, London: Printed by A. Maxwell, 1673, p. 47.

60 It wasn’t just women who were condemned for their dishonesty and wicked dissimulations, but, as Shapin points out, Italians; e.g. critiques of courtliness were deflected onto Italians who were ‘bred up to flatter, deceive, pander, backbite, and quarrel. Italian influence as corrupting honest English manners, including plainness, sincerity, directness, simplicity, and openness’. To the Italians we could also add the French, who were similarly condemned in England for their pernicious effeminacy. In general, the view expressed by John Evelyn, that the Restoration court was ‘a Stage of continual Masquerade ... where the art of dissimulation ... is avowed’, had wide and consequential currency. See Shapin, op. cit. (2), pp. 95–101, 100.

61 Thomas Sprat, *The History of the Royal Society of London, for the Improving of Natural Knowledge*, London: Printed by T. R. for I. Martyn at the Bell without Temple-bar, and I. Allestry at the Rose and Crown in Duck-lane, Printers to the Royal Society, 1667, p. 129.



The social repertoire that defined the place of women in gentle society was self-consciously translated into ‘masculine’ rhetoric by early apologists of the Royal Society. Modesty of body became modesty of mind, chastity became piety, and timidity became charitable tolerance.<sup>62</sup> In each case, prescriptions to the weak (that is, to women) were inflected, modified and turned into the defining strengths of men. However, the fragility behind the masculine mask – the fear of effeminacy, and the multiple forms of dependency it implied – haunted purveyors of newly christened manly words.<sup>63</sup> The virtue of ‘If’ could easily cross from manly confidence into territories best occupied by the womanly characteristic of flattery. Montaigne, once again, recognized, and warned against, this tendency:

Among gentlemen I like people to express themselves heartily, their words following wherever their thoughts lead. We ought to toughen and fortify our ears against being seduced by the sound of polite words. I like a strong, intimate, manly fellowship, the kind of friendship which rejoices in sharp vigorous exchanges just as love rejoices in bites and scratches which draw blood. [C] It is not strong enough nor magnanimous enough if it is not argumentative, if all is politeness and art; if it is afraid of clashes and walks hobbled. ‘*Neque enim disputari sine reprehensione potest*’ [It is impossible to debate without refuting].<sup>64</sup>

For Montaigne, ‘the most fruitful and most natural exercise of our minds is conversation. I find the practice of it the most delightful activity in our lives’.<sup>65</sup> He lamented that in his day it had been infected by the artful politesse of feminine sociability. He therefore sought less acrobatic and more direct translations of chivalric noble codes into questions having to do with the adjudication of knowledge and credibility.<sup>66</sup> The Boylean settlement, on the other hand, wasn’t so cavalier, taking pains to draw clear borders between the virtue of ‘If’ and the search for certainty, while at the same time blurring the boundaries between the male and the female. Civil conversation was truly the *pharmakon*, at once providing a potential antidote to the instabilities infecting the social world, while also producing both lists of likely enemies and a social milieu that was in a constant state of hyper-masculine readiness against the threat that insult might derogate honour or status.<sup>67</sup>

62 See, for example, Donna Haraway, *Modest\_Witness@Second\_Millennium. FemaleMan\_Meets\_OncoMouse: Feminism and Technoscience*, New York: Psychology Press, 1997, pp. 29–30; and Elizabeth Potter, *Gender and Boyle’s Law of Gases*, Bloomington: Indiana University Press, 2000.

63 Regarding the libertine – gallant – reaction see Bryson, op. cit. (31), pp. 268 ff.

64 Montaigne, op. cit. (47), ‘On Conversation’, p. 1046.

65 Montaigne, op. cit. (47), ‘On Conversation’, p. 1045.

66 In a sense, his view was much closer to that of Francis Bacon, who compared his natural philosophy to a hunt (with all its chivalric and manly associations). See, for example, Francis Bacon, *De Sapientia Veterum*, in *The Works of Francis Bacon* (ed. J. Spedding, R. Ellis and D. Heath), Cambridge: Cambridge University Press, 2011, vol. 6, and William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture*, Princeton, NJ: Princeton University Press, 1996, pp. 269–300.

67 Corneille’s *Le Cid* comes to mind, as do the heroic dramas written by Robert Boyle’s own brother, Roger, 1st Earl of Orrery, Lord Broghill. The most beautiful example of this can be found in the New World adventures of Catalina de Erauso (1592–1650); see De Erauso’s memoir published in translation by M. Stepto and G. Stepto, *Lieutenant Nun: Memoir of a Basque Transvestite in the New World*, Boston: Beacon Press, 1996.

## The literati's bifocals

The settlement inaugurated by Boyle and Co. was a strategic retreat from abstract theoretical debates that could be better managed by polite conversation with plain-spoken, stripped-down, modest and 'masculine' words than by Montaigne's conversational duels. These manly words could, in turn, be enchained to nature, as neutral and transparent mediums of things, thus demarcating the frontiers between society and manly lands of matter and experimental philosophy. As Thomas Sprat promised, the Royal Society would 'reject all the amplifications, digressions, and swellings of style: to return back to the primitive purity, and shortness, when men deliver'd so many things, almost in an equal number of words'.<sup>68</sup> This rhetoric of anti-rhetoric was meant to tie the world of particulars securely to the experimentalists, while also arming him with a pointed weapon to wield against the vagaries of elite sociability and potential derogation of honour, whether with regard to masculinity or to parentage.

How to be a 'new man' was a complicated business. The pecking order of the Restoration glow worm was negotiated by family, wealth, valour, knowledge of courtesy and knowledge of how best to display it (what courtesy books called prudence, discretion or dissimulation). Prudence required self-knowledge, and knowledge of others based on careful and close reading. It also required an education in these arts. Armed with this knowledge, John Locke presumed one could see the true man behind the mask. A good tutor in such a world, he said, would teach his pupil 'skill in men, and their manners; pull off the mask which their several callings and pretences cover them with, and make his pupil discern what lies at the bottom under such appearances'.<sup>69</sup> Jonathan Swift, on the other hand, was less interested in essences and true men, than in what he saw as the perversion of education into a veritable art of 'seeming'. Thus, he lamented, young divines, fearing accusations of pedantry, had given up their studies at university for 'Polite Conversation; knowing the World; and Reading Men instead of Books'.<sup>70</sup>

Politesse choreographed a society of watching, observing, weighing and measuring based on careful reconnaissance and constant surveillance. Social place and credibility were finely balanced against minute, frequent, complex and fine-grained observations and judgements. The cognitive habits rehearsed in courts, stately homes and coffee houses could not be bounded by the walls of elite sociability; they found expression not only in the writing of books of courtesy, but also in books about rhetoric, grammar and natural philosophy, and in practices associated with cabinets of curiosity, making and using mathematical instruments, performing anatomies and doing experiments.<sup>71</sup> Social performance, in this sense, provided the opportunity to develop cognitive

68 Sprat, op. cit. (61), p. 113.

69 John Locke, *Some Thoughts Concerning Education*, London: Cambridge University Press, 1892, p. 71.

70 Jonathan Swift, *A Letter to a Young Gentleman*, 2nd edn, London: Printed for J. Roberts 1721, pp. 9–10.

71 Indeed, the study – and systematization – of eloquence, grammar and courtesy were deeply implicated in the development and articulation of collecting and display practices and vice versa. See Wintroub, *A Savage Mirror*, op. cit. (52), Chapter 8; see Michael Wintroub, *The Voyage of Thought: Navigating Knowledge across the Sixteenth-Century World*, Cambridge: Cambridge University Press, 2017, esp. Chapter 5.

skills (objectification/distanciation, focused observation, collection, systematization, judgement) that could also be applied to interactions with the natural world. In other words, it wasn't just courtesy as a formal attribute of the culture of gentility, or the practice of civil conversation, that was translated into the new experimental philosophy, but also the cognitive skills and habits of observation inculcated by civility in practice.

The new experimental philosophy cannibalized the court of Elsewhere, growing strong through its incorporation of its hyper-vigilant and always observant eyes. 'Knowledge about people', as Shapin says,

was constitutively implicated in knowledge of things. One cannot have thing-knowledge without bringing to bear people-knowledge. That implication is arguably both generic (knowledge of people is a condition for having knowledge of things) and specific (what comes to be known about particular sorts of things is shaped by knowledge of particular sorts of people). What counts as thing-knowledge and what as people-knowledge has first to be segregated by actors as different epistemic sorts and then recombined to evaluate new claims. The practical actions involved in doing so are infinitely complex and infinitely finely adjusted to case and setting. *That is the art of decorum.*<sup>72</sup>

Perhaps we should go even further here in noting that this art of decorum trained and attuned the eye to an examination of the 'human' and 'natural' worlds through up-close and far-away empirical observations, through acts of distanciation (ascriptions of social and cognitive distance); experiential observation; and refined judgements of quality, reliability and credibility.<sup>73</sup> Indeed, knowledge of things and knowledge of people, like the literatures and practices of courtesy and natural history, grew in the matrix of a common cognitive style.

Religious instability and social struggle animated the articulation of this congruence.<sup>74</sup> The definition of the gentlemen was by no means settled in the seventeenth century, as Shapin amply documents.<sup>75</sup> The references upon which authority relied – family, land, tradition, money, civility, God – were a shifting, contradictory and volatile mix; the addition of observations and meditations upon the particulars of nature paralleled efforts to stabilize the contours of a social hierarchy under constant threat of violent dissolution. On the one hand, through books by (and the practices associated with) courtesy and civility, e.g. Erasmus, Castiglione, Guazzo, Peacham, Braithwaite, etc., and on the other hand, through works by Boyle, Petty, Wilkins, etc. Indeed, men like Sprat were

<sup>72</sup> Shapin, *op. cit.* (2), pp. 302–303, original emphasis.

<sup>73</sup> Antoine de Guevara was thus to describe life at court in terms resonant with Boyle's description of the glow worm's Crystalline Prison a century later; every word uttered by the courtier, he said, was to be 'noted', every pace 'measured', every meal 'counted', every pleasure 'indicted', every possession 'noted', every demand (to the Prince) 'registered', every fault 'tabulated', and every sin 'published'. See Antoine de Guevara, *Le Favori de court, contenant plusieurs advertissemens et bonnes doctrines, pour les favoris des princes et autres signeurs ... Nouvellement traduit d'espagnol en françois, par Maistre Jaques de Rochemore*, Anvers: C. Plantin, 1557, p. 135 (r).

<sup>74</sup> Perhaps we should rethink the value of symmetry as a methodological prescriptive in so far as it reifies analytic distinctions that tend to force nature and society, true and false, into absolutes rather than blurred interactions across borders that are always in dispute.

<sup>75</sup> See Shapin, *op. cit.* (2), Chapters 2 and 3.

quite explicit in establishing nature as the ‘elsewhere’ of social status. Experimental philosophy was, he argued, germane

to all *conditions*, and *degrees* of our *Nobility*. If they require such *Studies* as are proportionable to the greatness of their *Titles*: they have here those things to consider, from whence even they themselves fetch the distinctions of their *Gentility*. The Minerals, the Plants, the Stones, the Planets, the Animals, they bear in their *Arms*, are the chief *Instruments of Heraldry*, by which those *Houses* are exalted above those of the vulgar.<sup>76</sup>

Touchstone hadn’t so much abandoned courtesy for the manly land of things, as he had become a kind of experimenting courtly medium, a gentleman and a natural philosopher, a *Literatus* in the Language and Sense of Society and a ‘*Literatus* in the Language and Sense of Nature’.<sup>77</sup>

### The dirty hands of knowledge

The act of recalibrating the touchstone of truth from schoolmen and universals to gentlemen experimentalists and particulars was troubled by the social exclusions upon which gentility was based. Gentlemen were what the lower orders who menially laboured in the world were not: rich, learned, polite, distinguished and allergic to getting their hands dirty. They were not dependent on work for their livelihoods; rather, they were free from the pollution of manual labour. On the other hand, manual labourers were virile and active, and came to represent an important counter to the supposed effeminacy of elites. As Sprat argued, ‘the *Wit* that is founded on the *Arts* of men’s hands is masculine and durable’.<sup>78</sup> Empiricist epistemology, though potentially polluting to the gentility, was also the means by which the gentle could claim immunity from the corruption of manners attributed to high society. ‘*Honor*’ (*sic*), as Thomas Sprat put it in his *History of the Royal Society*,

cannot be maintain’d by intemperate *pleasures*, or the gawdy shews of pomp; but by true *Labors*, and *Industrious Virtu*. Let them reflect on those great men who first made the name of *Nobility* venerable. And they shall find that amidst the *Government of Nations*, the dispatch of *Armies*, and nois of *Victories*, some of them disdain’d not to *work* with a Spade, to dig the *Earth*, and to cultivate with Triumphant hands, the *Vine*, and the *Olive* ... then the minds of men were innocent, and strong, and bountiful as the *Earth* in which they labor’d. Then the vices of human *Nature* were not their *Pride*, but their *Scorn*. Then *Virtu* was itself, neither adulterated by the false *Idols of Goodness*; nor puff’d up by the empty forms of *Greatness*: as since it has bin in some *Countries of Europe*, which are arriv’d at that *corruption of manners*, that perhaps some severe *Moralists* will think it had bin more needful for me to persuade the men of this Age, to continue *Men*, than to turn *Philosophers*.<sup>79</sup>

But how could the experimental philosopher read the Book of Nature if he couldn’t get his hands dirty? Sprat felt the need to address what he called a ‘false conception’ which

<sup>76</sup> Sprat, *op. cit.* (61), p. 409.

<sup>77</sup> Robert Hooke, *Posthumous Works of Robert Hooke*, ed. Richard Waller, London: Frank Cass & Co., 1971, p. 338.

<sup>78</sup> Sprat, *op. cit.* (61), p. 415.

<sup>79</sup> Sprat, *op. cit.* (61), pp. 409–410.

'had got so much ground, that as soon as a man began to put his hands to *Experiments*, he was presently given over, as impoverish't and undone'.<sup>80</sup> Despite Sprat's objections, the relation of dependence on nature as the 'elsewhere' of valid knowledge posed a continuing threat to elite identity. Shapin describes one of the ways that this tension was managed, through what he calls 'invisible technicians' – the amanuensis, assistants and servants – that Boyle used to conduct his experiments. Boyle, he explains, relied upon these technicians, while simultaneously distancing himself from their labour. His social distance from the workers labouring in his lab was also an assertion of his cognitive distance over the matters of fact they helped him discover. Yet at the same time as he was borrowing from, abusing and excluding his servants and employees, he also fashioned himself after key elements of their identities.

In addition to being virile and masculine, labourers *did* more than they *thought*. They lived in a world with hardly a word. They performed deeds. They didn't sip tea over polite banter. This persona of naked and upfront simplicity was a cudgel used against the overly refined gentleman. Simplicity merged with authenticity, and wisdom with ignorance. The valorization of the plain-speaking and modest commoner has had a long history and a host of incarnations.<sup>81</sup> Montaigne, for example, relied on a simple and unlearned servant for an accurate accounting of Villeganon's outpost in France Antarctica. 'This man', said Montaigne,

was a simple, rough fellow – qualities which make for a good witness: those clever chaps notice more things more carefully but are always adding glosses; they cannot help changing their story a little in order to make their views triumph and be more persuasive; they never show you anything purely as it is: they bend it and disguise it to fit in with their own views. To make their judgement more credible and to win you over they emphasize their own side, amplify it and extend it. So you need either a very trustworthy man or else a man so simple that he has nothing in him on which to build such false discoveries or make them plausible; and he must be wedded to no cause. Such was my man ...<sup>82</sup>

In his essay, Montaigne balances the receptivity of the unlettered commoner to truth, with the construction of his New World avatar, the cannibal who was naked, heroic and wise. The wisdom of the ignorant was vouchsafed by artless, direct, virile and authentic experience; this figuration acted to refute the decadence and corruption associated with high society. Montaigne thus turns the tables on civilization and culture, arguing for the moral and epistemic superiority of workers, peasants and cannibals. 'They are savages', he said,

in the sense that we call fruits wild when they are produced by Nature in her ordinary course: whereas it is fruit which we have artificially perverted and misled from the common order

<sup>80</sup> Sprat, *op. cit.* (61), p. 79. See, for example, Shapin, *op. cit.* (2), p. 94 n. 137.

<sup>81</sup> Swift, for example, condemned the feigned erudition of the 'tribe of Professors' in contrast to the 'everyman' who possessed real and valuable knowledge. As he put it: 'Professors in most Arts and Sciences, are generally the worst qualified to explain their Meanings to those who are not of their Tribe: A common Farmer shall make you understand in three Words, that his Foot is out of Joint, or his Collar-bone broken, wherein a Surgeon, after a hundred terms of Art, if you are not a Scholar, shall leave you to seek. It is frequently the same case in Law, Physick, and even many of the meaner Arts'. Swift, *op. cit.* (70), p. 7.

<sup>82</sup> Montaigne, *op. cit.* (47), 'On Cannibals', p. 231.

which we ought to call savage. It is in the first kind that we find their true, vigorous, living, most natural and most useful properties and virtues, which we have bastardized in the other kind by merely adapting them to our corrupt tastes.<sup>83</sup>

Like Montaigne, Boyle was no commoner, a point he strenuously made with his every utterance and every act; he nevertheless recruited aspects of the tradition that valorized the simple and unlettered and made them his own. For example, in describing himself as a ‘man without much philosophy’ or as a person ‘that professes not rhetoric’, Boyle wasn’t simply calling out the arrogance of scholars and pedants, but also the comportment and sociability of elites, and directly, or by implication, the commonly held assumptions that labour was derogating, that truth could be spoken only by an educated elite, and that knowledge of the sublunary world was as inimical to piety as it was to honour.<sup>84</sup> He argued that just the opposite was the case:

The Christian virtuoso shewing that by being addicted to experimental philosophy, a man is rather assisted than indisposed to be a good Christian. This wonderful quick progress of this Religion being ascertain’d to our *Virtuoso*, by a Thing he is so much sway’d by, as Experience; it does not a little dispose him to Believe the Truth of so prevalent a Religion. For, *If* he considers the Persons that first promulgated it, They were but half a score of Illiterate Fishermen, and a few Tent-makers, & other Tradesmen. *If* he considers the Means that were employ’d to Propagate this Doctrine, he finds, that they had neither Arms, nor External Power, to Compel Men to receive it; nor Riches, Honours, or Preferments, to Bribe or Allure them to it; nor were they Men of Philosophical Subtilty, to intrap or entangle the Minds of their Auditors. Nor did they make use of the pompous Ornaments of Rhetorick, and fetches of Oratory, to inveagle or entice Men; but treated of the most Sublime and abstruse Matters, in a most Plain and unaffected Style, as became Lovers and Teachers of Truth.<sup>85</sup>

The mask of the plain, unassuming, simple and unlettered man, conjoined to experience (to labour), had the virtue of inoculating its wearer against the effeminate traits of overly refined and mannered gentility.<sup>86</sup> Boyle thus took great pains to describe his boyish delight in engaging with, and inquiring into, the most ‘vile’ and ‘despicable aspects of creation, including experiments where he handled excrement with his own precious hands’:

I have been so far from that effeminate squeamishness, that one of the philosophical treatises, for which I have been gathering experiments, is of the nature and use of dungs ... Nor when I am in my laboratory, do I scruple with [my own hands] naked to handle the lute and charcoal ... I think my actions fit to be examples.<sup>87</sup>

For all these praiseworthy qualities which found their way into Boyle’s newly crafted identity of the experimental philosopher, there was still an almost primal need to maintain a suitable distance from the unwashed masses.<sup>88</sup> The knowledge of the ignorant

83 Montaigne, op. cit. (47), ‘On Cannibals’, p. 231.

84 Quoted in Shapin, op. cit. (2), p. 180.

85 Robert Boyle, *The Christian virtuoso shewing that by being addicted to experimental philosophy, a man is rather assisted than indisposed to be a good Christian*, London: Printed by Edw. Jones, 1690, p. 90.

86 On Boyle’s allergies to libertinage and the rhetorical excess of his contemporaries see Shapin, op. cit. (2), pp. 148–151.

87 Quoted in Shapin, op. cit. (2), p. 190; see also 375.

88 Shapin, op. cit. (2), p. 90.

needed be translated 'into something fit for philosophy'.<sup>89</sup> Who better to undertake this civilizing act, argued Boyle, than gentlemanly experimentalists?<sup>90</sup> 'Experience', he intoned, 'is but an assistant to reason'.<sup>91</sup> Those who possessed reason stood on the highest rungs of social hierarchy; those who had experience, not so much. Boyle got around this paradox, which simultaneously distanced and valorized experience as the basis of philosophical knowledge, by transforming the commoners who were the sources of his knowledge into inert machines and experimental apparatus, i.e. into probes and touchstones, instruments that in the right hands could catalogue and register experience without prejudice or judgement. If there were problems or factual errors, no problem, fault could be directed down the social ladder, to the mistakes and accidents caused by the unlettered sources of empirical knowledge, thus saving the gentleman's credibility while at the same time underlining his social distance and cognitive superiority. Either way, gentlemen like Boyle could now have their cake and eat it too, becoming the other, while maintaining social and cognitive distance from this other; labouring without labour, while retaining their manly virility, harnessing God's truth amongst the most 'vile' and 'despicable' aspects of creation, while keeping their hands clean.<sup>92</sup>

Yet, despite the distance between the gentleman and the vulgar sources of his knowledge, there were also surreptitious returns and unlooked-for appropriations. Put more concretely, gentlemanly experimental philosophers, in mediating the experience of the ignorant and unlettered, not only were translating the 'unsullied' and 'raw' data of experience from their primitive and barbarous interlocutors; they were also translating and appropriating essential aspects imputed (by elites such as Boyle) to the identity of these excluded and debased others, though, of course, without the pejorative connotations – e.g. work was a pious, masculine and gentlemanly 'diversion'; knowledge was experiential and probable; rudeness was authenticity; and ignorance was diffidence and modesty.

In this respect, Boyle follows Montaigne in finding repose in the tensions between ignorance and truth, credulity and scepticism, the common man and reason. On the one hand, Montaigne belittled the testimony of ignorant commoners, women, children and the ill; 'The more empty a soul is and the less furnished with counterweights', he argued, 'the more easily its balance will be swayed under the force of its first convictions ... That is why children, the common people, women and the sick are more readily led by the nose'. But then, 'on the other hand', he continued, 'reason has taught me that, if you condemn in this way anything whatever as definitely false and quite impossible, you are claiming to know the frontiers and bounds of the will of God and the power of Nature our Mother ... We ought to judge the infinite power of ... Nature', he counseled, 'with

89 Shapin, op. cit. (2), pp. 395–396.

90 Shapin, op. cit. (2), pp. 93 ff.

91 Shapin, op. cit. (2), p. 382.

92 Or getting them 'dirty', but only if, and when, it was desired, e.g. as a condition of their freedom as gentlemen and their aspirations as experimental philosophers. As Sprat put this, men of freer lives 'do not approach those *Trades*, as their dull, and unavoidable, and perpetual *employments*, but as their *Diversions*'. Quoted in Shapin, op. cit. (2), p. 397.



more reverence and a greater recognition of our own ignorance and weakness'.<sup>93</sup> This is why Montaigne again and again returned to the figuration of the simple, the rude and the ignorant common man as a touchstone for credibility. As he put it in his essay 'On Presumption', 'it seems to me that the sorts of men who are simple enough to occupy the lowest rank are the least worthy of contempt and that they show us relationships which are better ordered. The morals and the speech of the peasants I find to be more in conformity with the principles of true philosophy than those of the philosophers'.<sup>94</sup>

Though Boyle typically erased explicit mention of the mediums – the 'invisible technicians' – that he employed to produce his experimental knowledge, he nevertheless valorized them *in absentia* for many of the same reasons as Montaigne. For Montaigne, like Boyle, God's absolute power rendered human knowledge, at best, probable. What other response could there be to the radical contingency of God's infinite power and inscrutable will than to retreat to a position of modesty, humility and diffidence; that is, to a position of dependency? In this regard, the same distance that characterized Boyle's relation to his amanuensis, and to the lower orders more generally, also characterized his relation to God, '*the most free and powerful Author of nature*'.<sup>95</sup> For Boyle, the investigation of nature was conducted along the porous frontiers between dependency and mastery; on the one hand, with reference to his 'invisible technicians', and on the other, to God's works (to Nature). To paraphrase Bacon, man is but the servant and interpreter of nature that can only command (*vincitur*) by obeying.<sup>96</sup>

### Nothing that is so, is so

Elite sociability might have been a way of negotiating complex and confused relations to truth; it also provoked widespread (negative) reactions. The settlements it proposed as a solution to the problem of the new – new worlds, new peoples, new customs, new technologies and the new men – were never very settled. Indeed, the centrality of words, manners, dress and comportment characteristic of evolving notions of elite identity aggravated an already widespread perception that things weren't quite right on the frontiers separating 'seeming' from 'being'.<sup>97</sup> As Shakespeare's Feste said, 'Nothing that is so, is so'.<sup>98</sup> Indeed, who was noble? What constituted sure knowledge? How could one

93 Montaigne, op. cit. (47), 'That it is Folly to Measure Truth and Error by our own Capacity', pp. 200–202.

94 Montaigne, op. cit. (47), 'On Presumption', p. 750.

95 Boyle, *A Disquisition about the Final Causes of Natural Things*, London: printed by H.C. for John Taylor, 1688, p. 96.

96 On the gendered dimensions of experimental philosopher's subservience to – and his power over – Nature see Evelyn Fox Keller, *Reflections on Gender and Science*, New Haven, CT and London: Yale University Press, 1995, Chapter 2.

97 As charted, for example, within the 'genre' of courtesy literature and satire, of course, but also as religious enthusiasm, millenarianism and radical egalitarianism. Indeed, such knowledge often contributed to the problems it was putatively meant to solve. As John Dewey said, 'Every thinker puts some portion of an apparently stable world in peril, and no one can wholly predict what will emerge in its place'. Quoted in Richard Hofstadter, *Anti-intellectualism in American Life*, New York: Knopf, 1962, p. 45.

98 Shakespeare, op. cit. (27), Act 4, scene i: 7.

know God? There was no consensus as to how to best answer these questions. Boyle looked to the material world of particulars, written like ‘Aegyptian Hieroglyphicks’ in the Book of Nature, to provide possible solutions.<sup>99</sup>

Boyle’s dream was realist, to conflate words and things, and become a transparent medium for Nature and God; his reality, such as it was, was nominalist, because the world of things was entirely contingent on God’s indecipherable and all-powerful will, restrained only by the principle of non-contradiction and his Covenant with Man.<sup>100</sup> God’s reasons were beyond the scope of human understanding. Though the causes animating the particulars shaping reality could not be known, they could nevertheless be carefully observed with the goal of discovering probable regularities amongst them. This was to be done by studying the Book of Nature, and studying men like books.<sup>101</sup>

The shift from universals and essences to particulars inaugurated by the *via moderna* was, for men like Boyle, infused with tremendous emotional and psychic significance – not as a theological or intellectual movement, but as a visceral response to vertiginous social and epistemic change. Born of a fallen, contingent, world were new observational and taxonomical practices; these were applied to the labour of commoners and craftsmen, to the lives and customs of New World peoples, to the behaviour of elites, and, of course, to the sublunary world of nature. In all these cases, the goal was to experiment upon, take stock of, collect, classify and register the particulars of the natural and social worlds; by this means, new men such as Boyle sought to secure the foundations of their knowledge, and to establish their status as legitimate representatives of truth and of right, moral, action.<sup>102</sup>

These efforts, however, were riven with tension in so far as they embraced both the radical contingency of the world of particulars, and the unquenchable desire to establish sure connections between nature, God and social authority. This instability was balanced on the point of God’s word; that is, His redemptive promise as instantiated in *potentia ordinata dei*.<sup>103</sup> God was all-powerful, and could contravene the order of nature at any moment. One could never be sure, but by studiously investigating the signs He inscribed in the Book of Nature, His will could (provisionally) be known.<sup>104</sup>

99 Boyle, op. cit. (45), p. 47.

100 Robert Boyle, *A Free Enquiry into the vulgarly receiv’d Notion of Nature*, London: Printed by H. Clark for John Taylor, 1685, p. 245. According to Shapin, ‘both Bacon and Boyle evidently belong within a long tradition of nominalist sentiment about the relationship between ontology and cultural classifications’. Shapin, op. cit. (2), p. 349. See, for example, J.E. McGuire, ‘Boyle’s conception of nature’, *Journal of the History of Ideas* (1972) 33(4), pp. 524–542; Francis Oakley, ‘Jacobean political theology: the absolute and ordinary powers of the king’, *Journal of the History of Ideas* (1968) 29(3), pp. 323–346, Oakley, ‘The absolute and ordained power of god and king in the sixteenth and seventeenth centuries: philosophy, science, politics, and law’, *Journal of the History of Ideas* (1998) 59(4), pp. 669–690. With regard to the self-imposed constraints on God’s power see Robert Boyle, *Some considerations about the reconcileableness*, London: Printed by T.N. for H. Herringman, 1675, pp. 159, 162.

101 See Swift, op. cit. (50).

102 The relationship between nominalism, casuistry and literatures of courtesy perhaps points to an unexpected connection between SHOT and Michael Hunter’s work. See Hunter, op. cit. (44), for example p. 70.

103 See, for example, Robert Boyle, *Some considerations*, op. cit. (100), pp. 21–22.

104 As the complete title of the *Christian Virtuoso* reads: *THE Christian Virutoso: SHEWING, That by being addicted to Experimental Philosophy, a Man is rather Assisted, than Indisposed, to be a Good Christian.*

Boyle's persona as an experimentalist – modest, chaste and pious – characterized his submission to – and faith in – nature and its Author; the mastery he performed over the social world, on the other hand, relied on his identification with God's creative freedom as the universe's 'most free Agent'. 'If', in this sense, conjoined the decorum of courtesy with a pious deference to – and channelling of – God's power within the confines of his *potentia dei ordinata*. The creative freedom to act within the brackets of 'If', as the power to recalibrate 'traditionally constituted schemes of plausibility', grew, as an ontological possibility, at the intersection of *potentia Dei absoluta*, *potentia Dei ordinata*, Boyle's *imitatio Christi*, and the vicissitudes of elite identity.<sup>105</sup> Matters 'physico-theological', thus charted and reflected upon, would act to restrain and channel words and thought by binding them firmly to the nexus of material things. As Boyle put it, without 'Channels many and deepe enuf for them all to flow <run> in', thought would turn to raving; that is, to 'vnlikely or vseless suppositions <hypotheses> ... nothing but a Play or a Romance personated'.<sup>106</sup> For Boyle, faith and reason were to be held together in the same way that God's *potentia absoluta* was to be held in check by *potentia dei ordinata*; that is, by reference to His word materialized in matters 'physico-theological'. As with Boyle, God's Word was his Bond.

### Authenticity and the artless immediacy of presence

The trope of the unlettered common man as a reliable speaker of the truth was employed to inoculate the experimentalist and the gentleman against critiques of aristocratic immorality and to firmly draw the boundaries between the feigned performance of 'romance personated' and the real thing. This figuration grew along the axes of 'class' and 'gender', but it also tracked closely to contemporaneous condemnations of learning and ritualism – of 'reason' – in the propagation of the faith. Boyle masked this tension by analogy, comparing the veracity of his low-born and humble informants to Christ's Apostles. 'Oftentimes', he said,

it pleas'd God, who is a most Free, as well as a most Wise, Agent, to make use of Unpromising Persons as his Instruments; I shall not on this occasion altogether overlook this Circumstance, That an Experimental Philosopher so often encreases his Knowledge of Natural things, by what He learns from the Observations and Practises, even of Mean, and perhaps of Illiterate, Persons, (such as Shepherds, Plowmen, Smiths, Fowlers, &c.) because they are conversant with the Works of Nature; that He is not only Willing to admit, but often Curious to seek for Informations from them, and therefore is not like to find much repugnancy in receiving the Doctrines of Reveald Religion, such as Christianity, if the Teachers of it were honest Men, and had opportunity to know the Truth of the Things they deliver, tho' they were Fishermen, Tentmakers, or some other Mean Profession.<sup>107</sup>

105 On Boyle's 'creative respecification of gentlemanly identity' see Shapin, *op. cit.* (2), p. 189. Boyle mixed up his experimental philosophy with his theology and his notions of civility in any number of ways, but amongst the most important was that they were all rooted in the certainty that universals ought to be abandoned in favour of the probability of particulars (e.g. matters of fact), and that moral knowledge ought to be modelled on recognizable forms of right or wrong acting rather than on essences. This would seem to point to a fundamental convergence between nominalism and civility.

106 Harwood, *op. cit.* (19), p. 192.

107 Boyle, *op. cit.* (85), pp. 73–74.

The capacity to give reliable testimony of God, like the capacity to give reliable testimony of nature, was not owing to the superior reasoning power of the low-born illiterate, just the opposite was the case; ignorance presented a *tabula rasa* to God and the world. For the experimentalist, common men were the perfect probes by which to register matters physico-theological. On the one hand, the experimental philosopher was to be a ‘distanced’ and reasoned adjudicator of his informants’ intelligence. On the other, he was to adopt key elements of their identity; as Sprat described it, ‘preferring the language of Artizans, Countrymen, and Merchants, before that, of Wits, or Scholars’. The wisdom of the ignorant, in this sense, presented a kind of distorted *speculum principis*, a ‘primitive’ anti-rhetorical mirror that reflected gentlemanly experimentalists as seen through the image of common ‘*experienc’d Men* of the most unaffected, and most unartificial kinds of life’.<sup>108</sup>

Used in polemics against arid school philosophers, the wisdom of the unlettered simple man also served to challenge the hubris that conflated eloquence and erudition with real knowledge. In this sense, it produced a figure that stood as a potent critique both of the scholastic tradition and of the performance of elite sociability.<sup>109</sup> It relegated God to the world of absolute power, while leaving men to labour in the weeds of the particular. It warned against idleness and promoted the virtues of hard, manly work. It spoke across the *via moderna* of nominalist theology to an ontology that recognized the post-lapsarian disjunction between words and things, while promoting, at the same time, not only the intractable unruliness of the libertine – who ‘took pleasure in the constant exposure of polite social life as “dissembling”, “hypocrisy”, and “artifice”’ – but also efforts to ground both language and social place in new empirical philosophies of particulars in the hope that the hard cold facts of nature could touch the heart with the same kind of inspiration as God’s revealed word.<sup>110</sup> In this regard, the intuitive knowledge associated with women and unlettered manual labourers was refracted across religious debates having to do with the proper role of knowledge and the propagation of the faith.

For the truly pious ‘enthusiast’, the intellect was a barrier to knowledge of the Divine. God was to be found intuitively through emotion and faith, not by study or reason. Such anti-rationalist critiques had immense appeal across the sixteenth and seventeenth centuries, as evinced by successive waves of Millenarians, Anabaptists, Seekers, Ranters, Quakers, radical Puritans, etc.<sup>111</sup> They can also be located in critiques of elite comportment and morality for too closely following the scriptures of courtesy books like Touchstone’s. God did not care for the pretensions of human knowledge, for ritual, status, fine clothes or tea. He was absolutely powerful, and could not be approached with such a faulty instrument as the intellect; rather, it was to the spirit that God would be revealed. For some enthusiasts, ignorance was believed to be the window to unmediated grace. As William Dell put it, ‘Ignorance is more fit and ready to receive the Gospel then Wisdom. And a Shepherd, and a Plowman will sooner receive the

108 Sprat, op. cit. (61), p. 257.

109 See, for example, Shapin, op. cit. (2), p. 395.

110 Bryson, op. cit. (31), p. 268.

111 See Hofstadter, op. cit. (97), p. 57.

Gospel and submit to it, then a *Scholar* who lives in the strength of *Humane Wisdom and Reason*'.<sup>112</sup> Or as one of Anne Hutchinson's followers recounted, 'I had rather hear such a one that speekes from the meere motion of the spirit, without any study at all, then any of your learned Scollers, although they may be fuller of Scripture'.<sup>113</sup> Learning would only hinder faith. God, rather, was to be known by intuition and understood by the heart.<sup>114</sup>

Boyle and his early Royal Society fellow travellers sought to cordon off their experimental philosophy from these irrational extremes by adopting, taming and transforming many of its key attributes.<sup>115</sup> Nature, like true faith, was to be biased against the biased. Those who claimed to read much or study long, or who were rhetorically ostentatious, would not be admitted to her Church. This was an odd paragon to be created by men who read widely; who had a literary style that was practised, erudite and well thought out; and who took such great care to transform their rhetoric into something that was not supposed to be rhetoric at all.<sup>116</sup> John Wilkins connects the dots between critiques of aristocratic morality and knowledge of God's truth: 'it will not become the Majesty of a Divine Embassy', he said,

to be garnished out with *flaunting affected eloquence*. How unsuitable it is to the expectation of a hungry soul, who comes unto this ordinance with spiritual comfort and instruction, and there to hear onely a starched speech full of puerile worded Rhetorick. 'Tis a sign of low thoughts and designs, when a mans chief study is about the polishing of his phrase and words ... Such a one speaks onely from his mouth, and *not from his heart*.<sup>117</sup>

Wilkins, 'principal! Reviver of Experimental Philosophy (*secundum mentem Domini Bacon*)', can here be found patrolling the same fraught borders as Boyle.<sup>118</sup> Though he believed that preaching God's word was an art that needed to be studied rigorously, he was careful to distinguish the 'substance' of the 'heart' from the rhetorical dross (the affected eloquence) of elite identity. The unstable balance between faith and learning with regard to knowledge of God was here paralleled by the precarious balancing act between authenticity and performance amongst the glow worms of Restoration England.

The extremes represented by Levellers, Diggers, Grindletonians and Quakers in the Old World, and the likes of Roger Williams and Anne Hutchinson in the New,

112 William Dell, *The tryal of spirits both in teachers & hearers*, London: Printed for Giles Calvert, 1660, p. 106.

113 Hofstadter, op. cit. (97), p. 58 n. 4.

114 See, for example, Dennis Martin, 'Schools of the prophets: shepherds and scholars in New England Puritanism', *Historical Reflections/Réflexions historiques* (1978) 5(1), pp. 41–80, and Leo Solt, 'Anti-intellectualism in the Puritan revolution', *Church History* (1956) 25(4), pp. 306–316.

115 See, for example, Hunter, op. cit. (44), pp. 56–57.

116 On Boyle's 'excessive' study and his 'hypochondria' see Shapin, op. cit. (2), p. 155.

117 John Wilkins, *Ecclesiastes, or a Discourse concerning the Gift of Preaching as it falls under the Rules of Art*, London: Printed by T.R. and E.M. for Samuel Gellibrand, 1646, p. 72, quoted in Richard F. Jones, 'Science and English prose style in the third quarter of the seventeenth century', *PMLA* (1930) 45(4), pp. 977–1009, 979–980, my emphasis.

118 G.H. Turnbull, 'Samuel Hartlib's influence on the early history of the Royal Society', *Notes and Records of the Royal Society of London* (1953) 10(2), pp. 101–130, 113 n. 62.

pushed the boundaries between faith and reason to the breaking point. This was especially the case in America, where, Hofstadter avers, ‘tension between the mind and the heart, between emotion and intellect’, found particularly fertile ground upon which to grow.<sup>119</sup> ‘Under American conditions’, he explains, ‘the balance between traditional establishments and revivalist or enthusiastic movements drastically shifted in favour of the latter’.<sup>120</sup> The Atlantic, however, was a porous frontier when it comes to voyages of the spirit and the intellect. Indeed, the anti-intellectual and radically egalitarian evangelical enthusiasts of early New England shared common roots with Boyle and the propagandists of the early Royal Society. The former did battle against Puritan elites and an erudite clergy to directly access the word of God. The latter took their plain-spoken manly rhetoric of anti-rhetoric as an antidote to the corrupting influence of women, learned pedants, ostentatious gentlemen, and abstract theoretical knowledge in order to translate the knowledge of the faithful into the faithful, probable and practical empiricism of the diffident (dissimulating) and decorous gentleman investigating nature.<sup>121</sup> If we had any doubts about the early Royal Society’s Rovian designs in the face of these border disputes on the frontiers of seeming and being, we need only look over Samuel Hartlib’s shoulder as he read the advice of his (and Boyle’s) friend and colleague, William Petty: avoid, he warned, those ‘who are tickled only with Rhetoricall Prefaces, Transitions, & Epilogues, & charmed with fine Allusions and Metaphors’, and cultivate, rather, ‘Reall Friends to the Designe of Realities’.<sup>122</sup> But as Borges, if not Rove and Boyle, well knew, the borders of ‘If’ are always difficult to secure, even within the walls (or ‘the steel slat barriers’) of reason.<sup>123</sup>

119 Hofstadter, op. cit. (97), p. 55.

120 Hofstadter, op. cit. (97), p. 64.

121 Shapin, op. cit. (2), p. 374; for an opposing point of view see Thomas Shadwell’s *The Virtuoso A comedy, acted at the Duke’s Theatre*, London: printed by T.N. for Henry Herringman, 1676. See also Hofstadter, op. cit. (97), for example p. 46.

122 William Petty, *The advice of W.P. to Mr. Samuel Hartlib for the advancement of some particular parts of learning*, London, 1647, n.p. (my emphasis).

123 See <https://twitter.com/realdonaldtrump/status/1076239448461987841?lang=en>.