

ON THE DEMISE OF INDIVIDUALITY IN MATHEMATICS AND WIDER ACADEMIA

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Abstract. Is genuine individuality for staff throughout U.K. academia in general, and mathematics by association, becoming eroded? This opinion piece suggests that it is most certainly on the decline, arguing for the accommodation of a wide variety of character types to enhance a workplace now dominated by frenetic busyness and inextricably tangled up with an overbearing compliance threatening to run riot in H.E.

1 On Crippling Compliance—A Background

1.1 Illusion: The Mathematical High Ground

In some respects, such is the level of creativity demanded of those who undertake serious mathematical scholarship, we should not be surprised that what is to outsiders a rather dry, dusty and dull pastime—devoid of inner emotional charge and attendant nuances of psyche—in fact exhibits the same kinds of divisions and debate as found in other fields that are fuelled by strong notions of intellectual self-identity. We can't escape ourselves, and this both informs the way we see our fit within the academy and fixes our mindset accordingly. James Joyce—the Irish novelist, short story writer, poet, and intermittent playwright and journalist—made a decision not to tender opinion in print about World War I (regarding politics and governmental affairs as areas for specialisms he did not possess), though one of his biographers was prompted to write “He may not have gone to the battlefield but he was in the trenches with himself every day, . . .” Being a mathematician can feel a bit like that, for we wrestle with the problems on which we work, and often with ourselves during the process. Mathematical votaries—whose overriding telos includes the discovery of personal truths, and whose faith in this sublime and at times mysterious occupation is unshakeable—are no less devoted than dedicated advocates of religion, and it shapes our essence and soul as we connect with something bigger than us into which we are completely invested as devotees of a fine craft that gives abiding sustenance.

“Nos mathematici sumus isti veri poetae, . . .”

Leopold Kronecker (1823–1891)

1.2 Actuality: The Low Ground For All

Day to day reality is, however, different from the glorious high ground of existence pictured. Increasingly, the tertiary sector is run along business paradigms, and some of those in power—while untrained to discern what we do, who we are, and what enthuses us as academics—are nevertheless in positions to enforce diktats that diminish, and can even destroy, elements of selfhood. For the most part they will have no accurate interior map of mathematics, nor of its professional protagonists, and don't have to as their focus is on a standardisation and regulation of habits that are monitored and modulated for operational efficiencies and procedural order in the name of customer-based instruction and progressively commodified research. It is difficult

to derive an assured and settled sense of self within institutional bureaucracies that—obsessed with income streams from student recruitment, from monetising services to outside agencies, and by pursuing other pecuniary opportunities—identify successes almost exclusively in terms of financial viability and profit, for the employer-employee relationship is then slightly dysfunctional and so becomes the working environment in turn. There is also a rich irony in that while our semi-privatised universities compete against each other and clamour to showcase their own carefully manufactured ‘individuality’ (crystallised as vacuous taglines and soundbite statistics tied up with ‘brand’), they seem happy enough to sacrifice that very same integrant of staff in homage to waves of an authoritarian and draconian managerial fundamentalism seeping through academe under a persistent tailwind known as *Compliance*—a watchword peddled so ceaselessly and vigorously nowadays that, though unquestionably having a role in matters of governance and audit, it is taking centre stage in our lives to the detriment of other facets almost as a disclosed deity all must worship. If left unchecked or overplayed then, when combined with (the newly coined and widely acknowledged) workload creep, it eventually builds a docile and submissive workforce who are disenfranchised and become somewhat desiccated and less productive. I’ve watched this happen over the last decade or so as people (particularly younger colleagues), overwhelmed with the stipulated minutiae of the job, react to a gradual awareness that all is not well by retreating into themselves as passive players in a game whose protean rulebook becomes ever more restrictive and severe. The resilience of older academics—usually more indomitably immune, and well versed in techniques of ‘survival’ that are fortified by bespoke armamentariums curated over a sustained period of time—is also chipped away, carrying with it such things as motivation, vitality and, in some cases sadly, goodwill, collegiality and commitment. We should not forget, too, that the suffocating fog of directives and decrees—drifting far and wide around the country’s campuses—guarantees pliancy and acquiescence (in other words, conformity) from those living with precarity through the use of so called casual contracts that weaken employment rights and securities; this in itself cements the foundations of a refashioned architecture for modern H.E. that declares its direction of travel. To borrow a fiscal term (which is quite apt given the post millennial priorities of universities), primary hopes and aspirations of educators—especially free-spirited ones—are out of sync with some of the quasi-corporations that house them, and are not conferred the *pari passu* status they once were.

2 Tasks, Tasks, Everywhere

2.1 Research, Teaching, and More

In relation to teaching, compliancy requirements cover the generation of materials (module content and pre-moderated assignments/examinations) ahead of term, meeting tight (sometimes unrealistic) deadlines for marking and feedback, logging discussions with undergraduate project students, initiating and continuing contact with personal tutees, upholding digital baseline targets for resources used in lectures/tutorials, liaising with external examiners and preparing work for them to moderate (with grading data collated), responding to student module questionnaires, evaluating and reflecting upon one’s own performance (from said surveys and annual peer observation), and so on—this is all over and above time spent in class. As for research, we must be mindful to seek (and be seen to do so) sources of funding, target specific types of journals in which to display our ‘outputs’ (perhaps even being directed towards ‘approved’ areas of work), formally record deliberations with M.Sc./Ph.D. students and provide regular updates on progress, organise/attend workshops, seminars and conferences, and more—and these while conducting time consuming research to the incessant beating drum of ‘visibility’ and ‘impact’.¹ Add in Outreach and Open Day activities, the refereeing of journal papers, taking on examinerships for courses at other institutions, completing on-line training modules deemed mandatory, engaging with D.P.R. (Development Plan and Review) appraisals throughout the academic calendar, getting involved with staff recruitment decisions and undergraduate/postgraduate applications, writing book reviews, supervising and visiting students in placement positions, mentoring junior associates, providing student references and letters of recommendation before/after graduating, participating in occasional curriculum planning, revamps and validation events, running pro-

¹The published refereed article is exalted as the highest form of mathematical discourse, through which ascension to higher rank is conferred; we instinctively follow, on autopilot, its repeated call as a dog blindly will a scent (see Appendix A).

grammes, second marking Ph.D. theses or else chairing *viva voce* sessions, serving on regional and (inter)national bodies to raise the profile of mathematics, establishing and fostering civic presence in our localities (through promotional public events, liaisons with companies, taking on school governorships, for instance), and we are busy, busy, busy—but also assumed to be available (on e-mail, Teams, Zoom and other platforms) 24/7 to answer student requests and enquiries, and to handle related administrative duties. Taken together, it is no exaggeration to say that the above can all too easily amount to a work experience characterised as one with a pleasure deficit. *Est unusquisque faber ipsae suae fortunae?*—I don't think so. This collection of tasks is huge, and many have a level of incumbency and onus attached to them by order. A 2021 article by R. Watermeyer *et al.*, 'Pandemia': A Reckoning of UK Universities' Corporate Response to COVID-19 and its Academic Fallout' (*Brit. J. Sociol. Edu.*, Vol. 42, pp. 651–666), surveyed over 1,000 U.K. academics on the reaction of tertiary sector leadership to the COVID-19 crisis—the authors painted a picture of universities chartered in new certitudes which have prioritised institutional solvency and impelled changes to the praxes and profiles of their ground staff; in tandem with emboldened protagonists of both neoliberal governmentality and educational market reform, considerations of staff loadings/health are paid but a modicum of attention.

2.2 We Have Problems

Traditionally, our 'halls of ivy' were highbrow cathedrals of learning where intergenerational conversations flourished between staff and students—here, young people could take time to mature organically into rounded individuals by learning from senior sages who had been allowed to grow their knowledge steadily, without major inhibitions or hindrances, and so retain a passion for work (humanities and social sciences subjects have always lent themselves more readily to exchanges that naturally breach the rigid teacher-pupil divide, but in others (such as mathematics) students have tended to be deferential to lecturers and less interactive with them because of the technical nature of material and theoretical abstractions involved). *Ce n'est plus le cas*. Universities once stood as stimulating ideological constructs designed to nurture curiosity, optimism and challenge in a relaxed atmosphere, but such a noble cause appears almost antediluvian, having been undermined year upon year since the 1990s expansion of higher education to the point where, from the available body of facts/data around us, those principles on which they were originally sanctioned seem wilfully discarded and everyone is now losing out in a bubble of mental and physical overdrive—students are under pressure to have long term career plans far too early in life and to tick-box a series of mini achievements during high stakes journeys of study in which information is disseminated and assignments tackled in digestible chunks, while staff are squeezed from all sides in expectation to assist with all of this and (without protest) be all things to all men, to coin a phrase: pedagogical innovators, dependable and expert instructors, high level and adaptable researchers, willing P.R.-meisters, proficient electronic clerks, and informal student counsellors, life coaches and role models.² Taking a cue from Aldous Huxley's description of 1920s Los Angeles as a city of "gimcrack movies, blank-faced . . . flappers, 'barbarous' jazz and unrelenting pep" [Introduction to *Brave New World* by D. Bradshaw, 1994 printing] as he reflected gloomily on the seemingly unstoppable global diffusion of the American way of life, we might view the dishonest overselling of (a) the student experience—full of grandiose claims, ballyhoo, and the promise of non-stop reward (where anxieties to succeed academically and to evolve personally (and demonstrably so for both) intensify)—and (b) the staff experience—overhyped as a chance to think, be creative, and express oneself in an agreeably co-operative, encouraging and appreciative setting (but largely a false *de jure* assumption for prospective candidates)—as merely the present day academic institution revealing itself as the agitated 'University of Dreadful Joy'. In a text, *Scientific Work and Creativity: Advice From the Masters* (Citizen Scientists League (2012))—the culmination of a decade of work studying scientific creativity by past and present practitioners—editor Reginald D. Smith brought together twenty-nine essays on aspects of this broad topic. One of them, reproduced from a book by

²The ways in which staff and students are almost chained together is an interesting point to ponder, for the changing scope and escalating strength of requests for academic/personal support that students initiate, and the obligations to help that institutions seem comfortable pushing onto educators, are a relatively new occurrence deserving of mention. Chameleon-like academics are assumed to have the energy, willingness and capacity to accommodate them, but the subtleties of setting up appropriate practical and personal relational boundaries as healthy practice is given little time to get right.

Australian immunologist Peter C. Doherty, contained a section that caught my eye; titled ‘Be Selective About Where You Work’, it reads thus (p. 312):³

“As a scientist, your chances of achieving anything can be greatly diminished by working in an institution that is under-resourced financially, does not value creativity or demoralises even the bright people that it manages to recruit. The places that nurture winners don’t all look the same, and can vary . . . Every one is different, so find an environment that suits your personality and work habits. Being in the regular company of colleagues who are stimulating to talk to and living in a culture that values creativity and insight contribute mightily to a satisfying life, even if the big prize doesn’t come your way.”

How many universities are failing their staff in these matters, I wonder—some manage to tick every abject box of adversity described here.

2.3 What it Means

Something has to give, and we have indeed already passed a significant tipping point (for as a gas spreads to occupy fully its confines, so will work expand to fill our lives if we allow it to). The 21st century is witness to academics mechanically performing, under banners of normalisation and regimentation, swathes of micro/macro missions which reduce us to an automaton-like collective manpower that—judging by a steady volley of media pieces we read—no longer has sufficient time and headroom to actually enjoy teaching and research. Maybe that’s no surprise—after all, the upper echelons of many universities are recognised as now being populated by layers of non-academic managers (as opposed to well qualified academic leaders boasting lengthy and proven track records, and with a commendable “*Praesis ut prosis ne ut imperes*” ethic) having little or no familiarity with either activity,⁴ but the fallout from this circumstance is an unfortunate, importunate and intractable disarticulation of staff for whom our two basic strands of work are now under hyper-surveillance in an air of mutual mistrust. We mathematicians always have the love of the subject to cling to, but an emerging theme within the H.E. community is the way authentic scholars struggle to situate themselves in meaningful and purposeful ways within a workplace that has been turned *au fond* into a consummately orchestrated education industry which takes its cues almost exclusively from market forces. The template has been set, mirroring features of a wider cultural and political *zeitgeist*, and already ‘student-centred’ learning—the latest *avant garde* initiative of educational neoliberalism where the ‘student voice’ reigns supreme—is being criticised for the extra attritional burdens placed upon staff (and the simultaneous infantilising of students who we are told graduate lacking self-discipline, self-responsibility, self-reliance and self-resoluteness, wanting (and in cases openly petitioning for) the path of least resistance to reach their immediate goals; students are selling themselves short in their approach to university study, suffering their own loss of individuality when part of bloated ‘conveyor belt’ cohorts that are tricky to handle unless as cookie-cutter clientele⁵).

Aside from issues that the H.E. sector continues to rail against (working conditions and *devoir*, pension deterioration, real term salary decreases, issues in and around equality/diversity,

³It appeared as Chapter 9 (‘How to Win a Nobel Prize’, pp. 238–253) in Doherty’s book *The Beginner’s Guide to Winning the Nobel Prize: Advice for Young Scientists* (Columbia University Press (2006)).

⁴In the past twenty to thirty years, there has also been a very sharp increase in the ratio of administrators to academic staff. There is a fair bit of literature about on the massive business style administration that has emerged in universities—set up to organise workers—and it comes with costs. We see plenty of highly-paid administrators embedded in ‘essential’ strategic work, which include professional managers like deans, for example, who used to be faculty members redeployed for a while in a new capacity before resuming their regular role—now they are mostly professionals (and often not seasoned *bona fide* academics in the classic understanding), who then have to hire sub-deans and secretaries, and so on and so forth, inducing morphologies that interrupt what should be a natural pyramiding form to structural configurations.

⁵From a student stance the tertiary system—under constant inspection and the subject of many a conversation—suffers criticism of some low calibre programmes, and cannot shake off the stigma of inflated grades (around 40% of students presently graduate with a Class 1 Honours degree, a proportion which has doubled in a decade and cannot be explained properly by the universities’ regulation watchdog (the Office for Students, or O.f.S.)); as we read of investigators being sent in to those universities (and colleges) accused of offering unacceptably inadequate provision, it also engenders disappointment in the employment market (a degree is not an automatic passport to a premium occupation) and inflicts lifelong debt *en route* to entry. Despite burgeoning levels of university uptake and continually improved results announced every summer, the U.K. stands alone as the only developed country in the world where young adults are, on average, less literate and numerate than their parents—these facts, sitting alongside problems faced by academics as outlined here, combine to form a damning indictment of a sizable part of education that has lost its way and for which there are no simple solutions on the near horizon.

and the routine resort to (and degrading of) part time contracts), it is this matter of compliance—embedded as it is in a chaotic, hectic and febrile system tipped in favour of fee-paying students—which makes a university situation look less attractive than it was only a decade or so ago and feeds into concerning levels of staff burnout, illness, turnover, and early retirement (there has also been recent press news of retention stresses caused by those in mid career walking away from the academy altogether—a sure sign of damage, discontent and disaffection). As a full professor I am made to feel like little more than a shop floor worker in a proverbial knowledge factory on too many occasions, and it never fails to irritate and depress me equally—teaching is treated as little more than an exercise with tangible yields and research likewise as merely giving rise to intellectual artefacts, each aimed at different end users and all of it registered, scrutinised, measured, quantified, analysed, rated, *etc.* As units of employment, our energies are channelled into a myriad of compliancy tasks which by stifling individuality dilute other accomplishments, and when these are baked into the day-to-day working *milieu* it becomes an uncontested one which thrives on a critical mass of silent assent—monkey see, monkey do, as the idiom goes.

3 Unorthodoxy is Still Needed

3.1 A Proviso

In mathematics the personal aspect of our efforts is without doubt no less important than in other disciplines, and there are certain ventures where an element of self-expression can be brought to bear—one might craft a technical research article or piece of exposition, while at other times a solicited magazine article or television/radio interview might be the order of the day. Classroom dynamics in the lecture theatre or seminar room are potentially hazardous, though, as words/actions misunderstood (or interpreted for nefarious reason) means we should be on our guard. Given the many limitations placed upon us one thing, however, rears its head with pressing exigency—mathematics needs to allow for the unique, the maverick, the obstreperous, the prickly, the refractory, the intransigent, the contrary, the irascible, the crotchety, the cantankerous and the singular as much as any other realm with imagination and ingenuity at its heart, for this is where talent may reside untapped (or frustrated) and ready for release. That said, there are dangers—and as a caveat I speak remembering past episodes—in that the introduction of truly wayward characters into any organisation can whip up destructive winds and spell trouble, especially for a close-knit team which can become unbalanced or at worst fatally wounded. Benevolent inclusivity is desirable in any establishment, but staff unable to maintain even a base level of conduct let themselves, their colleagues, and their paymasters down, and so militating checks and balances applied to unruly perpetrators of extreme perturbation—however bright they may be—are of use when deployed sensibly and with transparent consistency; those who are unscrupulous, underhand, malicious, subversive, untrustworthy, perfidious or devious are an unwanted distraction, basically, sully everything around them wherever they tread. Even more alarming is the Head of Department/School whose psychological schisms and man management defects can put a discipline in peril or lead it down a road to oblivion—lying and bullshitting, too, if incorporated as a way of life for some of these people, create instabilities and problems or exacerbate existing ones, and I unpack this a little in Appendix B simply because their power to derail individuals, teams and areas of work makes them grievous phenomena that we should all look out for; it's an unpleasant thing to think about, but one that shouldn't be ignored.

3.2 The Challenge

While a lofty and perplexing enterprise to many, mathematics is, of course, developed, extended and enriched by people—that is, humans—who hold positive and negative attributes by default; it prospers on a full spectrum of personalities to which exaggerated caricatures, narrow representations, unhelpful archetypes and shallow avatars held in the public eye really don't apply. To my mind this only confirms the utility of those looked upon as peripheral to accepted protocols (and one might advance that, in some instances, to operate unencumbered by them can be no bad thing). Mathematicians are as heterogeneous a group as any, and our *métier*—not uncommonly requiring prolonged periods of deep concentration—doesn't necessarily encourage us to polish our interpersonal skills, leaning as we do towards self-containment and independence of mind of-

ten amid quietude and self-imposed isolation; we tend to gravitate towards grounds where comportment and etiquette are remoulded and moved away from normative covenants, frequently in introspective preparation for the act of mathematics in all of its forms or else engrossed in it. It used to be the case that eccentric, odd and bohemian dispositions were embraced and even valued in academia for what they might contribute—besides specialist subject knowledge—but the H.E. sector of today is pretty much intolerant to idiosyncratic temperaments, by all accounts much keener to deal with what it is able to comprehend and subdue in an apparent crusade for a crushing identikit similitude among staff (as if striving to reverse the popular saying that “cats cannot be herded”). Mercurialness, capriciousness, irregularity, vagarity, and the like, appear to be seen as a threat to stability rather than as an asset, and the inconvenience of harnessing these sorts of traits as conceivably advantageous ones is all too readily rejected in favour of command-and-control regimes underpinned by tiresome layers of dreary administration and metrics-driven accountability that effortlessly exposes ‘outliers’.

Our distinctiveness surely makes for a number of ways to enhance the prosecution of our discipline so long as imperative dimensions of ipseity are granted latitude within a reasonable framework of behavioural precepts set for us. Uniformity and predictability may make life easier for universities to function in establishing adherence to policies and rules, but the dissentient, the recusant, the ungovernable, the recalcitrant, the disruptive, the obdurate and the free-willed fire-brand all have their place in moderation when afforded enough space and not comprehensively shackled or suppressed. In short, the academic sphere is richer and more invigorating for that quality known as ‘individuality’ when it permits flexible and divergent thinking, fresh insights, and new ideas. Those endowed with a touch of peculiarity or contrariness, and who march to the sound of their own band, so to speak, are to be found within the pool of professional mathematicians for sure—the good they can do should be welcomed and supported, not dismissed unthinkingly, for benefits delivered may well outweigh accompanying disadvantages.

4 Fight the Faustian Bargain

This piece makes no recommendations to alleviate and lighten those multiple and hybrid responsibilities that not only engender work intensification/extensification but, as Southampton University’s Michael Tomlinson has remarked to me, produce an uneasy and rather schizoid approach to working life. Divisions of labour between teaching and research academics, departmental heads, and so on, continue to be problematic and different in nature across so called ‘older’ and ‘newer’ institutions in which a repositioning of professional jurisdiction at ground level can only be agreeably addressed, and matters resolved, through constructive dialogue with university leaders. One obvious way to assist this process is to collate evidence of the strains felt lower down the academic food chain, and to this end efforts are being made. Many of the points raised here regarding the wide ranging elements that constitute the modern academic role are echoed, for instance, in a recent 2022 publication by J. Kenny and A.E. Fluck (‘Life at the Academic Coalface: Validation of a Holistic Academic Workload Estimation Tool’, *High. Edu.*, 20pp, (available at <https://doi.org/10.1007/s10734-022-00912-x>) who—noting the proliferation of localised and bespoke workload allocation models which have been largely ineffective in protecting academics from overload—evaluate their own estimation tool, A.W.E.T., and in doing so reveal how performance policies (focused primarily on research output) disadvantage many individuals because they ignore or unfairly minimise many scholarly, teaching and service-related tasks inherent to the job of an academic while at the same time serving the interests of university managers and corporate strategists. The study—whose origins lie in a large 2015 survey of staff in almost all H.E. institutions across Australia—used a subset of those participants to capture their activities within the model’s functionality and, from comments solicited accordingly, gauge its usefulness and accuracy. Informed creation of this software has emphasised the issue of workload as one that directly frames the robustness and health of a university through the welfare of its employees, and the research confirms the proposition that while academics value autonomy and flexibility they also both want and need all aspects of their work to be properly acknowledged. This validated tool offers the prospect of credible workload appraisal which would, if implemented, empower staff in negotiating those complex and miscellaneous expectations currently placed upon them in order to redress longstanding feelings of hardship

and lack of recognition in the tertiary sector—a problem seen also in the U.K. and other countries. Feedback from respondents suggests strongly that the model provides estimations that are more comprehensive and holistic than encountered previously, and an obvious general inference is that justified reductions in work assigned to academics would assuredly permit strands of independence and self-identity to emerge (where absent), grow and in time become embedded as a positive stimulus throughout universities and a hallmark of those who work so hard within them. Designed to build a common purpose in improving university environments, the authors have made A.W.E.T. available as a free resource, encouraging the academic community to make use of it and calling for its widespread adoption.

The phenomenon of ‘individuality’ first materialised and took hold after the huge communal selflessness that emerged during World War II, uniting a populace which continued to stoically endure austerity afterwards. By the 1960s, however, people were weary of leftover societal conventions, ready to insist upon and adopt new forms of personal choice in their work and private lives. While it could be contended that the pendulum has swung too far towards the concept of a so called ‘big me’ ethos of existence—creating all manner of issues through some melodramatic minority liberal agendas, and magnified by the frail scaffolding for living offered by social media—the tenet of self-governance, as a route to fulfillment and the realisation of one’s potential, remains of great worth. Academia is supposed to provide us with more than a glimpse of this, founded upon emancipating cerebral liberties—in research and instruction alike—whose importance as a fulcrum of job satisfaction cannot be underestimated and where one’s personality is rooted as core.⁶ Instead, we hear recurrent reports from media quarters that our surroundings conspire to impoverish us in our natural quest to be the best version of ourselves in these labours (a theme explored in a forerunner to this essay by the author in this journal: ‘Is the Fictional Dystopia of George Orwell’s Novel *Nineteen Eighty-Four* Finally Coming to Pass as a New Quasi-Reality for U.K. Academe?’, *Palest. J. Math.* Vol. 9, pp. 1–11 (2020)).

As mathematicians we must—in order to be faithful to the discipline we live and breathe—be allowed to bring the entirety of our proprium to all professional endeavours, whatever they are. This piece, an open and tendentious polemic containing both lament and warning, submits that to countenance anything less is to take the relative reliability of a livelihood—and with it some licence for our artistry and freedoms—as a trade off in being but a small, subordinate and replaceable cog within the contemporary H.E. machine that rolls on, disregarding and oblivious to the indispensable functions of personhood and wellbeing in successful professional engagement—a poor kind of complicit Faustian bargain, if you will, as more will nearly always be lost than is gained.⁷ Hooray for the individual, and long live individuality!

“There is much to be said for being a mathematician.”

John E. Littlewood (1885–1977)

Disclaimer

The opinions expressed in this paper are solely those of the author who makes no intended reference—explicit or implied—to any current colleagues at the University of Derby, nor to the institution itself.

⁶A colleague—referencing in a moment of despair the production line manner in which students pass through an academic system unsympathetic to staff juggling learners’ needs with personal ones as we try to work constructively and with devotional gusto—once solemnly queried the relative merits and virtues of our feverish toils and travails, asking “How can the efforts of so many, for so much of the time, seem to be regarded so little?” I am reminded of the opening verse of the poem ‘I Sometimes Think’ by Thomas Hardy (see his 1922 collection of poems *Late Lyrics and Earlier, With Many Other Verses* (1st edition, publisher Macmillan and Co.), p. 14): “*I sometimes think as here I sit/Of things I have done,/Which seemed in doing not unfit/To face the sun:/Yet never a soul has paused a whit/On such—not one.*”; these doleful words capture the sentiment.

⁷Mathematicians share this conviction earnestly, I know, and I digress a little to expand on the assertion. American Cassius J. Keyser (1862–1947)—of whose writings I am a fan—located mathematics as part of what it means to be human, being interested in what, as a vocation, it signifies on a personal and community level; he incorporated throughout his narratives perceptive reflections laced with philosophical considerations and more practical ones (as a few others have through the ages). In enunciating what might constitute suitable material for presentation at the outset of an August 1915 talk on mathematics (this was delivered at a meeting held in Berkeley “. . . [due to] the presence of an international exposition, . . .”, the transcript of which appeared as the essay ‘The Human Significance of Mathematics’ in the journal *Science* ((New Series) Vol. 42, pp. 663–680) later that year)—suggesting elements of its history, developments, utilities, logical foundations and spiritual bearings as befitting themes—he produced early on some elegant imagery as a prism through which to portray his message; I have added it, in Appendix C, for all to savour.

Appendix A: The Perniciousness of ‘Impact’ (Watermeyer and Tomlinson)

I would urge any interested reader to digest a recent paper, written by Richard P. Watermeyer and Michael B. Tomlinson (‘Competitive Accountability and the Dispossession of Academic Identity: Haunted by an Impact Phantom’, *Edu. Phil. Theor.* Vol. 54, pp. 92–103 (2022)), which discusses the intensification of research performance demands in U.K. universities in relation to the complex terrain of academic identity formation; this is directly tied up with our never ending quest to establish and safeguard a sense of individuality—in reality an ephemeral, fluid, and sometimes transient and fragile entity—as a valorised human yearning to offset the confusing morass of marketisation, massification, globalisation and (post pandemic) digitisation of H.E. and those agents of *détournement* within.

Footnote 1 (Section 2.1) is a reminder of the status of the lauded journal paper (where ‘high-ranking’ outlets accord more weight, and cover the complete scale of work bookended by the theoretical and the practical), but universities of today also seek research from their staff that makes its mark by touching upon things such as ‘significance’, ‘reach’ and ‘applicability’ as pointers to quality. The article by Watermeyer and Tomlinson considers to what extent a demand for researchers to produce and evince economic/societal impact (I would add technological impact here)—as part of the rewards game of performance-based research funding—influences self-visualisation. In particular, testimonies from staff involved in developing so called Case Studies for the 2014 R.E.F. (the periodic Research Excellence Framework determines research ‘excellence’, using selected criteria, in order to apportion grants) confront the assumption that involvement is automatically constitutive to a researcher’s sense of worth and advantageous to his/her professional profile by reports that contributions (decided in many institutions by almost clandestine teams of dedicated senior academics and administrators) are appropriated for positional institutional gain such that interviewees were found to complain of, and be resigned to, identity dispossession and exploitation—they simply play into a competitive culture powered by a systemic insatiability for much coveted ‘scholarly distinction’ that causes the privileging of appearance and differential staging in rationalisations of publicly funded research. The authors argue, *inter alia*, that authentic forms of the academic idea of ‘self’ are thus subjugated, and personal autonomy desecrated on the altars of accountability housed in our churches of self-affirming credentialism, by a reprioritising of academic labour away from its role as first and foremost a strong intellectual summons (an interesting sociological model informs a contextualised representation of the academic ‘self’ hinged upon personal (backstage) and institutional (frontstage) performances within a larger societal theatre of ‘Spectacle’, a term of reference first formalised in Marxist capitalist society theory years ago and applied here to the modern consumer culture of education⁸).

By and large—apart from some muted instances of endorsement through compensatory affirmation—the references to the R.E.F. as a choreographing force were negative, citing short-termism in research support coupled with an unedifying corrosion of intellectual propriety where the creation of academic image comes with an invasion of less elevated requirements. It should also be noted, however, that it does spawn other reactions and behaviours, too, which ironically offer some solace and a safety net for existence—namely, that feelings of alienation or rejection from the exercise can act as a buttress for epistemic selfhood rather than contributing to epistemic self-doubt, and that “. . . , by declaiming the efficacy of what is formally registered to them as impactful, respondents are able to articulate a version of self that is closer to their perceived and idealised identities [while being] foreign and antagonistic to their institutional [depictions].” This fits with the observation of “. . . academics working in detachment from material interest and in the [arms] of moral compulsions.” (p. 99).

There are many scholarly works that are underpinned by the theme of an individual’s sense of meaning, assurance and validity in tertiary education. The discourse by Watermeyer and

⁸The accounts solicited more than suggest that ‘impact’ is “. . . a superficial response to the [unremitting and ubiquitous] demands of excellence auditing which have little connection to or sympathy for the prolonged role and sustained influence of academics as contributors to the public sphere. Such a motif strongly resonates with what Bauman [Ref.] calls ‘cloakroom communities’, those ‘patched together for the duration of the spectacle and promptly dismantled again once the spectators collect their coats from the hooks in the cloakroom’, which in turn is emblematic of universities’ approach to R.E.F.-impact as a tightly [orchestrated] pop-up performance.” (p. 98). Watermeyer has elsewhere (with G. Derrick in a short *Nature* ‘Career Column’ piece of July 2022) noted that some “. . . express embarrassment at the hullabaloo surrounding a U.K.-centric, parochial exercise. Claims of greatness determined through a national assessment seem feeble in [a] global context.”

Tomlinson is to be recommended as an insightful one which, though conceptual and postulative in nature, is embedded in collected empirical/experiential data and very much relevant to the majority of U.K. academics; it reinforces a simple and immutable truth—we must do all we can to avoid succumbing to obtrusions, and their ilk, that would starve of oxygen our glowing candle of mathematical impulse and leave us with but a languid flickering flame of compromise.

Appendix B: On Lying and Bullshitting (Frankfurt)

American philosopher Harry G. Frankfurt, presently professor emeritus at Princeton University, published in 2005 a best-selling text that gave a theory of bullshit and falsehood (*On Bullshit*, Princeton University Press; the following year he turned, in a separate book, to what lies beyond them—the truth—and society’s loss of appreciation for it), discussing the differences between lies and bullshit. The main one between them, he concluded, can be summarised as that between *premeditated intent* and *inadvertent deception*. Those who are lying (and those being truthful) are focused on truth—the liar wants to actively steer people away from discovering a truth (while the person telling the truth wants to present it as such). Bullshitters, however, differ from liars (and people presenting the truth) with their willful neglect of the truth; the liar is viewed as being deliberately deceitful or injurious because of the resolve behind the decision to lie, while someone who bullshits lacks the calculating design characteristic of the liar as it requires no knowledge or awareness of the truth. The liar is consciously avoiding or misrepresenting the truth, but the bullshitter may potentially be telling the truth or providing elements of it without the wish to do so. Frankfurt believes bullshitters, and the growing acceptance of bullshit, are actually more harmful to society than liars and lying. Fake news may be the domain of the on-line troll as a vehicle to spread propaganda, though it can at least be ‘fact checked’ and called out, as it were. The lurking shadow of bullshit falls short of lying, but is deceptive in its own misleading and specious ways which satisfy the perpetrator’s dominant objective to be effective in manipulation and distortion. In summary, liars 1) take part in a reasoned act of deception; 2) understand the truth, but attempt to hide it; 3) spread untruths but still accept the distinction between truth and falsity, while bullshitters 1) do not consciously deceive; 2) need to neither know nor care about the truth; 3) ignore or reject altogether the disparity between truth and falsity.

The popularity of Frankfurt’s analysis emphatically speaks of its merit and agency, as it illuminates real phenomena almost everyone encounters in most professions.⁹ He is of the opinion that the intellectual elite practice the art of bullshitting as a useful tool for the benefits it brings, and this includes many people who are highly educated and acquire a casual arrogance that leads them to be negligent about, and indifferent to, truths and falsities—they have much confidence in their own opinions, and this may (if they are not participating in outright lying) encourage them to be a source of bullshit. As a ploy that (like lying) is unpalatable, inexcusable and indefensible, it should be debunked and decried for its deleterious and inimical consequences—in academia, as much as in any other field of work. In so far as it is something that needs careful navigation in and around our existence in H.E., endemic bullshitting affects the integrity of the working environment, the probity of individuality as a lived value, and fidelity to one’s own manifestation of it.¹⁰

Appendix C: Mathematics Described Figuratively (Keyser)

The following is included as a eulogium for Keyser in setting down words of his that exhibit unusual delicacy and striking symbolism. From the position of a would-be speaker tasked (as described in Footnote 7) with opening the minds of an audience to the treasure that is mathemat-

⁹The presence of either may also unmask someone suffering from the so called Dunning–Kruger Effect (a cognitive bias whereby people with low ability, skill, or experience regarding a certain type of task or area of expertise tend to overestimate their prowess and/or knowledge).

¹⁰Alan Flintham, in a private communication, suggested to me that there exists a third category sitting between liars and bullshitters, termed “embroiderers” of the truth and exemplified by what politician, author and famed diarist Alan K.M. Clark called being “economical with the *actualité*”, or what the wife of politician and novelist Jeffrey H. Archer said of her husband’s “capacity for inaccurate *précis*”. This group present their own set of dilemmas, and many people would seem to move between these three divisions—at times seamlessly.

ics (with “. . . material . . . superabundant.” (p. 664)), he framed the actual oration as he spoke of that person (as delineator) who would acknowledge and appreciate (pure) mathematics as

“. . . a house of many chambers; he knows that its foundations lie far beneath the level of common thought; and that the superstructure, quickly transcending the power of imagination to follow it, ascends higher and higher, ever keeping open to the sky; he knows that the manifold chambers—each of them a mansion in itself—are all of them connected in wondrous ways, together constituting a fit laboratory and dwelling for the spirit of men of genius. He has assumed the task of presenting a vision of it that shall be worthy of a world-exposition. Can he keep the obligation? He wishes to show that the life and work of pure mathematicians are human life and work: he desires to show that these toilers and dwellers in the chambers of pure thought are representative men. He would exhibit the many-chambered house to the thronging multitudes of his fellow men and women; he would lead them into it; he would conduct them from chamber to chamber by the curiously winding corridors, passing now downward, now upward, by delicate passage-ways and subtle stairs; he would show them that the wondrous castle is not a dead or static affair like a structure of marble or steel, but a living architecture, a living mansion of life, human as their own; he would show them the mathetic spirit at work, how it is ever weaving, tirelessly weaving, fabrics of beauty, finer than gossamer yet stronger than cables of steel; he would show them how it is ever enlarging its habitation, deepening its foundations, expanding more and more and elevating the superstructure; and, what is even more amazing, how it perpetually performs the curious miracle of permanence combined with change, transforming, that is, the older portions of the edifice without destroying it, for the structure is eternal: in a word, he would show them a vision of the whole, and he would do it in a way to make them perceive and feel that, in thus beholding there a partial and progressive attainment of the higher ideals of man, they were but gazing upon a partial and progressive realization of their own appetitions and dreams.” (pp. 665–666);

a lovely excerpt from the start of what is an absorbing record of the event.

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