Journal of Philosophy of Education, 2025, **00**, 1–17
https://doi.org/10.1093/jopedu/qhaf083
Advance access publication 3 December 2025
Original Article
Special Issue: *Walden* in Tokyo: Stanley Cavell and the Thought of Other Cultures

Nothing to report: moral and pedagogical reflections from a voyage into engineering curricula for Sustainable Development Goals

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ABSTRACT

This essay chronicles the intellectual voyage of an ordinary language philosopher within a European Union-funded project (A-STEP 2030) using quantitative social science methods to define sustainability competencies for engineering education. Thinking through the standard 'lit review' and expert-validation procedures, it explores the philosophical and pedagogical perplexities emergent from arrogating a right to claim to know how to educate coming generations in order to achieve the Sustainable Development Goals. Drawing on thinkers like Cavell, Wittgenstein, Emerson, and Thoreau, it raises sceptical questions regarding the ways in which our intellectual tools may limit our capacity to shape a future different from our present, about the arrogance of expertise, and even about the possible limits of ordinary language as it is ordinarily practised to address the deep problems raised by the current polycrisis. Drawing inspiration from considerations on the ordinary language of astronauts, the text concludes that perhaps one way forward for ordinary language thought is to re-imagine the ways in which our uses of words rely not only on the self but also on our commonplace forms of life on planet Earth.

KEYWORDS: philosophy of education, moral philosophy, Stanley Cavell, perfectionism, engineering pedagogy, sustainable development education, scepticism

'Learning' is not as academic a matter as academics are apt to suppose.—Cavell 1999: 171

Received: November 8, 2021. **Revised:** September 26, 2025. **Accepted:** October 13, 2025

'I' REPORT

The following article retains the I: the first person. However, in this effort, contrarywise to Thoreau's *Walden*, the 'I' is agrammatical: the writer has only primarily been one person. Call me Brad, identify me as a poor student of Cavell, one who some years ago—never mind how long precisely—set out with my co-authors and some others on an adventure, a 'research project'. I warrant the places through which we travelled were more exotic to me than them. Or rather, and perhaps more precisely, if we all felt what I brought to voice was true enough to sign, and to my co-authors I owe words and gut reactions, it was perhaps I, schooled in another world, who registered most shock at the strangeness of our environs, and ended up initiating the scribbling of these pages.

Did we visit another land?

Well, I come from America and this 'research action' occurred on the *vieux continent*. But more pertinently, I arrived from another school, from an almost self-taught world, where curriculum had always been a rather autodidactic book-to-book affair, with a philosophical encounter or (un)kind word mixed in on occasion, and here I found myself on a vessel bearing the flag of 'sciences of education', headed out to do what—to meet a white whale? Perhaps not, but not far from it. Our research project, generously funded by the European Union (EU), dealt with creating curricula to train engineers to achieve the sustainable development goals (SDGs). It was entitled A-STEP 2030 (Attracting Diverse Talent to the Engineering Profession of 2030). We self-described our project as responding to the question of how to 'better prepare engineers to meet the needs of society in this rapidly changing world' by identifying the skills engineers would 'need to help achieve the UN Sustainable Development Goals (SDGs)' and the means to 'develop programmes to enhance those skills within engineering students' (A-STEP 2030 2019). To these ends we applied scientific approaches. We were impressed by the experimentally demonstrated potency of competence-based pedagogy, and we were wowed by exciting instructional innovations such as project-based learning (PBL). Many, many, participated in the project: other researchers, students, administrators, and industry representatives. We were a proverbially interdisciplinary convening, hailing from institutions in seven countries, but we were an even more international lot. To complete our research, we carried out fieldwork and interviews, we mined databases and performed statistical analysis. We did all that could be expected of researchers in the modern social sciences, covering the '*quanti* and the '*quali*' in conformity with the latest methods, findings, and practices.

And there I was. I tried to make myself useful. I asked questions about our questions. It is not sure that I was useful to the project, but our work was of use to me. Hence this.

Truth be told, project A-STEP 2030 confronted me with an overdose of perplexity. Our research questions provoked intellectual vertigo. Developing sustainably, we are sometimes told, will demand taking account of and anticipating the economic, social, and ecological dimensions of our actions. But how can we do this? I

personally cannot pretend to be able to holistically account for all the economic, social, and ecological implications of an innovation such as satellites equipped with remote sensors capable of detecting methane leaks, other than knowing in advance that if we put too many of them up there, thus exceeding orbital holding capacity, we end up with the orbital chain reaction known as Kessler syndrome.[1] Nor can I honestly claim to be able to anticipate the developmental consequences of the innovative information technologies, which currently do too much of my students' homework, since I know perfectly well that every time an artificially intelligent agent arrives at a 'superhuman' level, surpassing in its capacities even the smartest among us, this simply means that we humans cannot fathom what it is doing (also to us) (Cristianini 2025: 7).

Not being able to do this in two of the most obvious cases (both technologies are feted as key enablers of a more sustainable development (SD)), I do not particularly feel that anyone is licensed to say that they are practising engineering in such a way as to be sure about the triple bottom-line sustainability of their innovations. And what about the vaunted virtues of the old-fashioned and the low-tech? Do we encounter similar concerns when we are dealing with solutions which are 'rude and basic', technologies which are perhaps 'lower in performance' but are more purportedly economical in resources and supposedly 'locally controllable' (Bihouix 2014: 8)? Arguably the potential danger here is even greater. The entire point of the satellites and the supercomputers is that they enable us to obtain and analyse global data regarding what each of us are doing at ground level. Imagine if everyone switched to burning wood on the premise that it is a local, low-tech, and natural way of heating our homes and cooking our food. We would destroy our local forests, pollute our collective air, and harm the lives of many animal others. There is a reason why reflection on sustainability, *Nachhaltigkeit*, started in forestry, and there are now billions of human reasons why our current population needs to be kept in mind when embracing 'low-tech' solutions whose environmental performance derives from a rhetorical embrace of localism. Depriving ourselves of high-tech monitoring is no solution to our problems: it is merely an expression of a desire to deprive us of the means to quantify and connect with others around the globe to come to solutions collectively. As economists like to say, 'there is no such thing as a free lunch', or rather, and more precisely: there are no easy solutions to our collective challenges.

But I would say, keeping in mind the satellite and the LLM, that the pair transparently promise to help us put the means employed in our struggle out of sight and mind. And I will say upfront that most of what I speak about in the following concerns things which we would otherwise not say, things which would otherwise not make it into professional 'research reports' or 'policy briefs'. Happily, no one else that I worked with saw things so darkly. Reassuringly, the limits of our plausible

[1] The Kessler syndrome, or Kessler effect, collisional cascading, or ablation cascade, is a scenario proposed by NASA scientists Donald J. Kessler and Burton G. Cour-Palais in 1978. It refers to what happens when the density of objects in low Earth orbit increases to the point where collisions between objects cascade, a process that itself increases the amount of space debris and the probability of further collisions.

outputs did not keep the EU from financing the work. Almost miraculously, none of us abandoned our efforts, existentially overcome by 'Earth emotions' (Albrecht 2019). This all offers consolation because as little as I fit right in there amid the bustle of positive social science, I nevertheless have never doubted this: the general problem, assuring the forms of life to be enjoyed by future generations, matters. Education, in all its manifold appearances, does likewise.

Returning to my 'I', to my sense of being shocked, and the relationship between that intuition and my tuition, let me note that I come from the 'nondoctrinaire' tradition in philosophy (Hampe 2016: 7). One whose pelagic vocation, spawned by that ungraspable phantom of life, regards its own teaching and learning as an 'endless question', an open query as to whether 'anything or everything' counts as philosophy (Cavell 2022: 7). To me, not only the teaching of philosophy, but also the philosophy of teaching, so also the philosophy of building curricula, has always been an occasion for thinking about limits. I am always more concerned with imparting what Hampe calls a sense of the 'knowledge of non-knowledge' (*Das Wissen des Nichtwissens*) than selling anything foundational (Hampe 2016: 89). But simply acknowledging what Cavell calls the 'truth of skepticism', and treating it as only bearing on how we regard things like *warranted assertibility* and *epistemic justification* misses the boat (Cavell 2018: 184). My concerns here bear not only on whether our research hit its constative marks, but on the carbon costs of our practices: all those flights taken, all those 'global conferences on sustainability', all those 'transatlantic symposia on sustainable development'. Was the carbon emitted equal, on balance, to the saving power of our reports? What was the performative relationship between our saying and our doing? I cannot say, and I will leave it to the reader to decide whether this output attains a claim to reason.

When I encounter anxiety 'in teaching, in serious communication', writes Cavell, it is perhaps in that moment that I recognize it 'is that I myself require education' (Cavell 1999: 125). The trip(s), let us say, threw me back upon myself. I will end this narrative of my voyage in another world with another perspective on philosophy. I have thus tried to turn my participation in the project in such a way as to at least add something more than questions, embracing at least in part what Markus Gabriel calls the sceptical dialectic of our epistemic economy (2008). This tale tells of a quest for something like realism. I recount how my sense of how things stroboscopically 'hang together' (to quote Sellars) has been altered (Sellars 1991: loc. 105). This bears on how we frame our questions and our own unsustainability. Regarding ambition of achieving sustainability, I feel our situation is rather analogous to what J. L. Austin once remarked of the uses of the word 'real': 'the negative wears the trousers' (Austin 1962: 7). We can learn a great deal more about how things are *not* sustainable than about how they *are*. But we also have a tendency when dealing with these matters to not fully acknowledge the fragility of our grasp on the 'world', and so frequently dismiss that 'evanescence and lubricity of all objects' which Emerson called the 'unhandsome part of our condition' (Emerson 2010: loc. 3,645). This perhaps leads us to believe more strongly in revolutionary solutions than we ought, in so doing disregarding the grain of the world. Hopefully

this is not a mere report on unhandsomeness; hopefully it also contains something sustaining, a stimulus, for example, to education. But on this 'I' can make no promises.

ECONOMIES OF READING

Walden begins with a heterodox account of economy. Thoreau wants us to see we 'labor under a mistake' (Thoreau 1992: 5). We measure value in terms of capital and land, not in terms of experience and life. I am not sure that clarifies what I publish here—an account of my performance of a 'lit review'. As a genre, the lit review is supposed to isolate a short list of commonly agreed-upon competences. That is what everyone writing on competences does. People have not necessarily been happy about it. One of the pioneering efforts, a paper entitled 'Key Competencies in Sustainability: A reference Framework for Academic Program Development', began by lamenting the fact that the literature is dominated by 'laundry lists' of competencies (Wiek et al. 2011: 203). But then it provided another list. We have already published our list. The output bears the title: 'Preparing Engineering Students for the Challenges of the SDGs: What Competences are Required?' (Beagon et al. 2022). Yet as we made the report, much was left behind. I want to speak a word about these remainders, not quite about what Cavell, writing about *Coriolanus*, calls our 'fecal issue', but surely about 'eating and elimination' and 'the plain facts of cosmic rhythms' as they apply to 'reports', 'reading', and 'research' (Cavell 1988: 94).

What I know for certain is that the 'reading' which directly went into making that report and reading as I normally use the term do not follow the same economic logic. My task was to examine texts concerned with engineering education and the 2030 SDGs. The initial plan was to consider only the most recent and reputable literature—articles specifically interested in competence-based approaches published in the last three years uniquely in peer-reviewed top-tier (Q1) journals. These criteria unearthed an easily surveyable number of texts. Predicated on their conclusions we would be able to build our experiments and assess our findings. Yet the perfunctory selection of the corpus bothered me. Why (other than expediency) should we read only texts that deal with education for the SDGs and not also ones concerned with SD in general? Why look only at articles, not books? Might not monographs lay out much that escapes a 5,000-word article? Given that everything published in the last three years refers to earlier works written before their dates of publication, did it not also make sense to look at them? Was it even possible to fathom the conceptual frameworks underpinning the approaches presented in the more recent publications without reading the earlier ones? Did it really make sense to look only at competence-based approaches? Hartmut Rosa and Wolfgang Endres oppose 'competence-based' and 'resonance-based' learning (2016). They make a good case for thinking that the latter approach, with its emphasis on establishing ongoing and mutual relationships with the world rather than asymmetric stances of mastery, might be a more sustaining form of pedagogy. Certainly that suggestion, and indeed the whole German tradition of writing on *Bildung* (with its continual

questioning—here quoting the great humanist Ernst Robert Curtius—of the tenuousness of the connection between '*Sinn und Nutzen*' [meaning and utility], hence of the tensions between existential meaningfulness and the pure functional value of our competences) should not merely be disregarded in the name of making measurable progress towards reforming the educational system to overcome the ravages to education wrought by attempts to measure its progress (2017: 35)? In sum—I thought—who in their right mind defends the idea that one better understands philosophy by reading Hegel on Plato, Aristotle, and Spinoza, without bothering to also read of those authors? But perhaps this is the best way to experience *Das absolute Wissen*. But I am quite compelled by Jacques Rancière's phrase—*tant pis pour les gens fatigués!* (too bad if you're tired!) (2009)—echoing as it does the more poetic words at the conclusion of the *Ethics*: '*Sed omnia praeclara tam difficilia, quam rara sunt*' (All things excellent are as difficult as they are rare) (Spinoza 2006: 161).

In any case, I had from the outset a mistaken idea of what constituted 'reading', and the understanding to be taken from reading. This was the source of my questions and confusions. Perhaps I was not supposed to be 'reading' at all. Not in the way in which I was taught to 'read', not only by Cavell, but also by the entire community of philologists who taught me, people for whom philosophy could be thought of 'as a kind of reading', with reading in turn being an occasion for philosophizing (Cavell 1988: 52). Perhaps reading just meant reading the abstracts, skimming the rest, and then swallowing the conclusions. No contextualization, historicization, or interpretation. Perhaps as an expert in the field of educating for sustainability I was supposed to have already read everything, and so the performance of doing the lit review was merely that, a performance aimed at demonstrating my already earned state of being up to date on the literature while nodding an H-index elevating nod to others of similar status. But reading most of the articles did not leave me with the impression that their authors cared much for the long history of their field.

But model of curiosity and indiscipline that I am, my reading ran outside the assigned lines. Let me give a sense of this 'reading' which found no place in the official report. Stepping off the beaten path, I encountered Serge Latouche's blistering critique of the idea of SD; his insistence that development might be sustainable is a 'myth' perpetuating development (2004: 293). I found a similar line of thought in the work of Wolfgang Sachs, for whom the endeavour named SD seemed caught in a tension—he names it the 'planetary dialectic'—between a desire to care for the Earth, and a will to dominate it and the peoples of the developing world as well (2015). Thinking the problem lay with the 'productivist' (Audier 2019) and growth-oriented notion of 'development', I resolved to employ other keywords to expand my research. But what is the keyword for attempts to reach what the SDGs clearly did aim at—a better life for everyone—without *talking about development*? I read works on ecological education and environmental education. I read books on decolonial ecology. I read the *Manuel de la grande transition* (2024) and wondered whether we should be working on education for the transition rather

than for the SDGs. I read texts on engineering education and texts on education in general.

I thought particularly deeply about whether other cultures and languages, what are modishly called other cosmovisions, might not have better resources for addressing our concerns. Margaret Atwood's short story, 'Time Capsule Found on the Dead Planet', itself modelled on Ovid's 'Four Ages' out of the *Metamorphoses*, transfixed my attention. Its depiction of the Golden Age suggested a close connection between pantheistic animal worship and cornucopian social existence:

> Our gods had horns on their heads, or moons, or sealey fins, or the beaks of eagles. We called them All-Knowing, we called them Shining One. We knew we were not orphans. We smelled the earth and rolled in it; its juices ran down our chins. (2011: 192)

What enchanted me here was the intimation that somehow the good life had happened by accident, almost as a by-product of believing in almost nothing (fictive divinities), in something like a symmetrical inversion of the way that the accidents—or in more technical terms, 'negative externalities'—operate to render us unsustainable when we try to use technology to generate abundance. It is as if our innovations, initially intended to improve our environmental impact by augmenting the efficiency of our resource consumption through applied science, are doing us in far more rapidly than would be the case if we were to entrust ourselves to a 'science' utterly decorrelated from empirically justifiable truth claims. A science of sensible non-sense. At least to us nonbelievers.

The more I read, the more I doubted. I doubted the terms, and I doubted myself for doubting, reasoning that if my concerns really were rational, they would already have been put into the system, already synthesized by an invisible hand working within even the narrowest selection of literature under study. But things haunted me when I began accepting that. For example, SDG number 5 deals with gender equality. But nearly all the published articles on engineering education competences for the SDGs ignore gender. One recent article, 'Engineering Education for Achieving Sustainable Development Goals by 2030', at least gracefully notes it omits dealing with gender (Shahidul 2020). But it does not dwell on the costs of this omission. One might think that gender issues really are not in the purview of research on engineering education. As if there was not a real problem of gender diversity within engineering education. I cite that article, but I should not: everywhere the procedure was similar. Articles professed to deal with engineering education and the SDGs and yet conveniently ignored vast swathes of our common future.

Our report does the same thing. Trying to hold together such radically different items as not only cabbages and kings, 'but numbers and duties, possibilities and finger snaps, aesthetic experience and death', is hard (Sellars 1991: 86). I doubt Sellars was satisfied he had done it. I knew that if I did not ignore things, my lit review (like these very pages) would lapse perilously close to literature. Which may not—in philosophy—be a catastrophe, but when writing lit reviews, one needs to learn

to say things how everyone says them.[2] To write a proper lit review I needed to learn how to read texts as containing nothing more than lists of competences. When I did this, I was struck most forcefully by the artfulness of some of my predecessors in their attempts to generate progress in reading by building meta-lists out of anterior lists. In one article with nearly 150 citations, the authors employed a 'webbibliomining method' to select twenty-two texts bearing on SD competences, and then they derived from this canon, again using an algorithm, a neat and, I suppose definitive, set of eleven statistically significant SDG competencies (Quelhas et al. 2019). I am not sure whether this method, as scientific as it appears, involved anyone but a computer reading anything. But it is surely 'scientific', and it progressed well beyond my capacities or inclinations.

But if I was going to make a report, I clearly needed to learn how to read in an appropriately economical way.

ARROGATIONS OF EXPERTISE

Cavell recounts a situation in which a child 'little or big' asks: 'Why do we eat animals?' or 'Why are some people poor and others rich?' or 'What is God?' or 'Why do I have to go to school? or 'Do you love black people as much as white people?' or 'Who owns the land?', and he admits he was inclined to answer, 'this is what I do', but found this response 'thin'. This encounter with the paucity of what we say turned him towards the task of reimagining philosophy as 'education for grownups' (Cavell 1999: 125). So far as I get it, we, as Emersonian perfectionists, ought to make a claim to reason when we encounter thin words. We should raise questions about what we say, short-circuiting the normal course of philosophizing in ordinary language, which would have us accept what we *would* say as how we *should* go on.

But where do our claims to reason come from? Emerson would say genius—'to believe your own thought, to believe that what is true for you in your private heart is true for all men,—that is genius. Speak your latent conviction, and it shall be the universal sense; for the inmost in due time becomes the outmost …' (Emerson 2010: 572). Emerson puts great stock in our self-reliance, our almost magical capacity to perform such seemingly whimsical speech acts in the right way. But what happens to whim, of which Emerson avows hoping that it is 'somewhat better than whim at last' (Emerson 2003: 121), and of which Cavell remarks, seeming to echo Wittgenstein's *Investigations* (Wittgenstein 2003: 91) on his turned spade, 'there is nothing I can say in general about why I write as I do, speak the way I speak' (Cavell 1990: 97), when it is our relationship to things, to the material world, which is problematic?[3] Is this not different from cases in which what is at stake is our

[2] 'But can philosophy become literature and still know itself?' writes Cavell, in the final, enigmatic closing lines of *The Claim of Reason*, posing a question of philosophy to itself, whose answer I am perhaps grappling with actively here (Cavell 1999: 496).

[3] Here I have in mind Wittgenstein's *Philosophical Investigations*: 'How am I able to obey a rule?'—if this is not a question about causes, then it is about the justification for my following the rule in the way I do. If I have exhausted the justification I have reached bedrock and my spade is turned. Then I am inclined to say: 'This is simply what I do.' (Wittgenstein 2003: 91).

relationship to our fellows? Is it not, perhaps, the outmost which must become the inmost, the non-self which must be acknowledged as reliably giving the self its sustenance? But if that is so, is this reorientation, this expansion into 'another orbit' as Emerson puts it (Emerson 2003: 161), a revision of how we experience our claims to reason, a ground for refusing them as arrogance and egotism, or is it rather a form of humility, a willingness to be schooled by the simplest things which always already entered into the equation?

These questions were much on my mind as we ploughed into the next phase of our research. Often the second phase consists in validating lists compiled though the lit review. Two recent papers, Mukhtar et al. (2019) and Quelhas et al. (2019) , compiled lists then used panels of experts to validate each competence's pertinence on a Likert scale. They asked: 'Is the ability to think in systems important for sustainable development?' The experts responded: 'A) strongly agree; B) Agree …'. Partly due to my failure to properly compile a nice laundry list, we took a different tack. We gathered 'stakeholders'. People 'in the know'. Experts. We employed the latest and greatest innovations drawn from the science of creativity and innovation, 'zigging and zagging' our way out of the box (Sawyer 2013). We used futures thinking exercises. We tried hard to dredge up more and more innovative ideas to save our planet. We were rewarded with over fifty competences. Yet this sublime wealth of ideas was—from the point of view of publication in a journal expecting a short list—unacceptable. Similar studies indicated that one needed at most eight to sixteen key SD competences. Therefore, 'maths' became a 'technical skill'; 'questioning' became 'critical thinking'. We ended up cutting it all down, claiming (not much differently from those who had preceded us) that the key competences were systems and critical thinking, and what we called normative, strategic, interpersonal, interdisciplinary, and lifelong learning competences.

These procedures stimulated doubts regarding the role of experts and their claims to reason. I wondered whether the grammar of expert opinion, the very form of life which underwrote it, was nothing less than unsustainability itself. It seemed to me as if our entire procedure might embody availability bias (Yudkowsky 2008: 92). It is normally a valid heuristic to ask experts what to do, but perhaps it is a form of systematic bias to do so in a condition in which the entire social order, regulated by the norms which validate these experts as experts, is itself known to be the problem. Cavell himself evokes this fallacy in *The Claim of Reason* and with reference to the procedures of ordinary language philosophy. He observes that appeals to what we say can make us look like 'the drunk in the story who, having dropped his keys trying to open his house door, has gone around the corner to look for them under the street lamp because the light makes it easier to find things' (Cavell 1999: 155). In both appeals to experts and to what we would ordinarily say, we seem to overstate our self-reliance, and so to fall into the lamplight fallacy. We ask the experts because they are the experts. But do they know?

My thoughts on education have long been marked by Nietzsche's critique of what he called 'educated philistines' (Nietzsche 1984)—those who believe that they know, and yet who are profoundly ignorant precisely as a function of this

profession to knowledge. Similarly, Adorno lamented the spread of what he called institutionalized *Halbbildung*, forms of education which accomplished nothing other than consolidating a disordered order, a sustaining of the ideological illusion of sustainability within otherwise unsustainable development. Furthermore, he highlighted that such collectively imposed immaturity precisely emerged in the fertile ground of the 'blind spots' of contemporary consciousness (Adorno 1972: 94). From this point of view, our techniques of arrogating expertise may appear as nothing other than means of using availability and our absence of understanding of our reliance in such a way as to confound *Halbbildung* with rationality. This seems more insidious than balancing our future on whim; it seems as if it might be an ultimate perversion of the principle of self-reliance. A collective effort to annihilate via science and education all things outermost, something like a fateful confirmation of our collective failure to confront what Cora Diamond calls the 'difficulty of reality' (2003: 21). Always admitting, of course, that the leap into following whim always anyway felt like breaking a rule.

Our susceptibility to such foolishness is anything but shocking: maybe we are not drunk, but we are terrified. We are aware that the economies and the forms of life which we live are in nonconformity with the constraints of the physical world. But Emerson also reproached us of not regarding 'nature face to face' (Emerson: 1). For this, too, is self-reliance—something like a willingness to learn, to break out of our habits, to take into account 'other data for computing our orbit than our past acts' (p. 123). Acknowledging that can make it feel as if one can only obey the spirit or perfectionism's past while coming quite close to questioning its letter. Which is to say that appeals to individual genius can, in most past cases, seem like just what we do not need. They can look like—here returning to Cavell's anecdote, 'a second drunk who, looking at the difficulties of the first, tries to convince him that he can't have dropped his keys because they obviously are not under the light' (Cavell 1999: 156). At issue is where we locate our real need, and how we get our heads around where we are, and what we as philosophers (or teachers) are supposed to do.

Positive approaches to social engineering, just like some appeals to a self-reliant genius aligned with almost poetically remaking our words in the name of altering our 'character' (meaning our constitution and our writing)' (Cavell 2004: 8), make sense when problems concern, as they so often do concern, what Hilary Putnam calls the 'refusal to acknowledge the other as a person' (Putnam 2006: 137). They work well as therapeutic procedures when the ills being addressed are internal to the constitution of what Cavell called the 'city of words' (Cavell 2004: 448). Within the ambit of this city, and this is clear in all the cases questioned in the vignette with which I have opened this section, the core problems are the relationships between the powerful and the disempowered, white and black, man and woman, poor and rich. The fundamental intuition generating our perhaps whimsical reactions may well be the sense that beneath our normative conclusions regarding the proper ordering of things there is to be found concealed violence, ultimately a slight relative to the other's ability to express themselves in word and act

as an equal. That is what Veena Das shows in her careful work on the gender and class violence occurring 'within the weave of life' of everyday language (2007: 88). But then if that is all we are talking about, it is as if we operate on the assumption that the human city is self-reliant, that fixing our social problems comes down to attending to the violence in how we word the world. But if our ways of wording the world of course require remedy, it cannot be just that which needs changing.

So how might we open ourselves to things, and what might ordinary language have to do with it? Here I want to return to Atwood's text. Almost without question, there is some value in personifying everything, if only because it helps us to see that non-humans also have moral status. But it perhaps does not follow from this that creating what the sociologist Bruno Latour has called a 'parliament of things' (1999) and launching ourselves into what Baptiste Morizot has called interspecies 'diplomacy' (2016) will be sufficient to heal our ravaged world. There are frustrating limits on personification and acknowledgement when it comes to the articulateness of non-human others. It is one thing to regard a lion as having a personality, and even to demonstrate that it can, after a fashion, speak, and another to believe that learning to speak lion is sufficient in and of itself to solve our planet's problems.[4] Moreover, I wonder if such a focus on interspecies diplomacy does not constitute a perverted version of self-reliance.

For what is perhaps outermost with respect to such imaginary solutions are things like satellites and supercomputers, those technological objects which we are quick to dismiss as unnecessary luxuries, but on which our forms of life nevertheless depend—in flat contradiction of any belief, doubtless projected on wild animals, that they somehow possess the secret to dwelling without such technological dependencies. But that is precisely why engineers, and their education, matter. Their very existence puts us 'right fronting and face to face' with the fact that we are not self-reliant, and we can—as Thoreau put it—feel the 'sweet edge [of that fact] dividing [us] through the heart and marrow' (Thoreau 1992: 93). But since we perhaps do not want to end our mortal career, or at least the careers of unborn people, it perhaps behoves us to admit that even if technology is part of the problem, the social dimension of coping with our unsustainability might well begin by refusing to continue pretending away this dependency.

Perhaps our procedures—our efforts to compile lists validated by experts just as well as our appeals to genius, reason, and romantic wild others—amount to little more than affirmations that there are still streetlamps in a context in which we know perfectly well that our justification for appealing to pure reason and pure poetry has been exhausted, and it is time to really pay attention to what we do. Hence it seems that we paradoxically need to learn how to exercise self-reliance and to unlearn it, to play it according to other rules, rather in the same way that artists, in constantly remaking art, produce something which is not simply 'progress' but which is not 'mere succession either' (Cavell 1976: 183). In that spirit, let us try a bit to turn things around, to get our genius not from what comes out of our

[4] 'If a lion could speak, we couldn't understand him' (Wittgenstein 2003: 235).

mouths, but rather from our excessive attention to matters of ingestion and excretion. And, in turn, we must learn to think that our thoughts on perfectionism, as perfect as they were in their context, might well themselves need some constitutional amendments. Which, I think is akin to saying that the competencies and the readings which we left aside, because they were remaindered, were more meaningful than the statistically validated ones which we published in our reports.

MY PLANET

To share something like a conclusion, I want to offer a sense of where I have arrived by attending to the blind spots in the literature and the arrogance of expertise. But I would like to say more: to shed light on how to reimagine perfectionism in less self-reliant ways, exploring how we can better come to acknowledge our dependencies on our planet, our machines … even those beyond the biosphere, and indeed on each other … all without leaving behind a demand for commonplace voices of reason.

Our Common Future, the first UN report on SD, begins with these words:

> In the middle of the 20th century, we saw our planet from space for the first time … From space, we see a small and fragile ball dominated not by human activity and edifice but by a pattern of clouds, oceans, greenery, and soils. Humanity's inability to fit its activities into that pattern is changing planetary systems, fundamentally. Many such changes are accompanied by life-threatening hazards. This new reality, from which there is no escape, must be recognized—and managed. (Brundtland 1987: 11)

This framing placed thinking on SD within a certain perspective: one surveys the planet from space, one uses remote sensors on satellites to do so, one crunches the data on computers, and thereby one sustains planetary habitability. From the first, that was the engineering perspective on sustainability. The counter-perspective, the one which has been generally defended by humanists, ecologists, and critics of development, continually insisted that we must return to the local, terrestrial viewpoint of the grounded human in its 'natural' environment. That was the bifurcation of perspectives, the way of configuring planetary disputes. Virtually no one in the literature expressed concern regarding places on the limits of the Earth System. No one lived there. They were just the non-place(s) from which SD discourse regarded the planet.

But it is also true that we increasingly live with orbital space. The data required for studying twenty-six out of fifty 'essential climate variables' can only be acquired by satellite. And, as the New Space economy develops, near space is getting increasingly junked up. What I have elsewhere called the nightscape has become littered with our artificial stars (Tabas 2023). If we say that the planet's future depends on that data, then we must care about objects in orbit. My friend Shan Yap and others have been trying to draw our attention to this, promoting what we call Earth–Space Sustainability (Yap and Truffer 2022). But how can we attend to such an uncommon place? How can we care about conditions which we can rarely see for ourselves, and about a place in which we do not, and to an extent cannot,

live? Moreover, should we? Is not my discourse here a simple confirmation of our overstretch, one more attempt to justify the unsustainable as the core of sustainability itself? But what if I argue that these attempts to dismiss space, to dismiss excessive responsibility, are just more evidence of our collective difficulty with reality? Our collective desire to claim that we are more self-reliant than we are, and in so doing to abdicate full responsibility for the full expanse of our collective destructiveness?

To struggle against this tendency to deny the extent of our world, I want to turn now not to a dialogue with satellites, but to a brief consideration on the everyday language used by astronauts in orbit. These are humans who, in a state of almost total dependency on technological systems, dwell in the spaces occupied by our satellites, and so perhaps can help us to better understand the reality of our world. Their extraordinary ordinary language games, for that is what I will be attending to, can help us to better understand both this uncommon place—this domain which does not exist in science fiction but in our actual world. Yet more than this, their ways of wording can help us to understand how the planet, that which we more typically think of as our world, plays the role of a silent partner in our commonplace ways of learning and teaching words, supporting our expectations, and the expectations with regards to others, of being 'able to project them into further contexts' (Cavell 1976: 52).

Astronaut Sandy Magnus claims you cannot really understand gravity, 1G, 'until you have left it, come back, and experienced that horrible force trying to push you into the ground' (White 2014: 28).[5] Leave in abeyance for now the value judgement expressed by 'horrible'. What does she mean to say, when she says that we, the others, cannot understand 'gravity'? I find clarifying the French astronaut Philippe Perrin's account of his first days aboard the International Space Station (ISS). He remarks how one of the first things which he learnt was that the trash can, which was velcroed to the wall, had an up and down. This was pointed out to him by the Russian cosmonaut Valery Korzun, who reproached him for getting things wrong. Perrin points out how strange this upside was, noting that without planetary gravity 'nothing really ordered the can's orientation' (Perrin 2024: 238). Emphasizing the point, Perrin explained that over the course of the interaction Korzun floated upside down relative to him, such that the pair were in effect engaged in a foot-to-face interaction. An experience which he admitted finding unpleasant, noting that even when one can choose any direction as up, and so put the trash any way one pleases, it is 'much nicer when one chooses the same orientation when living communally', and that includes constructing rational constraints such as accepting '*dans quel sens on doit ranger la poubelle*' (in which direction one ought to stow the trash can) (p. 239). Now let us come back to Magnus' value judgement, and to the meaning of 'gravity' in general. Astronauts sometimes celebrate the experience of being in orbit as a kind of liberation. Charles D. Walker bears witness to a 'feeling of euphoria' which he attributes to 'the mind's realization that the reality

[5] This citation above and other references to comments by astronauts in this passage are drawn from interviews carried out between the cited speaker and psychologist Frank White.

without gravity is in effect a new dimension of freedom' (White 2014: 177). Yet what Perrin's anecdote illustrates is that this use of 'freedom', just like Valery's employment of the word 'up', and Magnus' use of the word 'gravity', is not so much free—as in unconditioned by all material constraints—as conditioned *otherwise* from the uses of these words on planet Earth. While we might say, thinking about the trash can, that the astronauts are liberated because they can decide which way is up, we might equally say that the deepest insight provided by their condition is insight into what these words meant in their original context, where the very definitions of up and down—are not chosen but *given* by the Earth.

To understand the meaning of gravity is to grasp that many of our common place constraints on how we have learnt to project meanings rely on the support of the Earth for their sense, but that other elements—for example, the problem of trash—persist no matter where we have been. The spaceship is in no way analogous to the planet: in the one case our meaning-making derives from, and is sustained by the planet, and in the other, we must 'freely' construct our city in words to render our co-existence supportable. But that freedom is not really free either: it is conditioned by the constraints provided by the zero-G environment, by the kinds of ways of doing which are supported, or not supported, within that uncommon region of our common world. I insist on this, because my entire point is that language in space does not merely stand in a relationship of negativity to language on Earth, but rather emerges out of other conditions, out of another form of life. We who have always lived on planet Earth really do not know what 'gravity' means, or could come to mean, if we do not address ourselves to the likes of Magnus. More to the point, this other form of life is not one which is *out of this world*, the world of the astronauts, confined as it is to a ship, temporary as it may be, *is also our world*.

Sometimes ordinary language philosophy, in its haste to attend to and connect with the other, can draw our attention away from acknowledging the weirdness of the whole of our world. In a 1980 reply to John Hollander initially published in *Critical Inquiry*, Cavell cited the great poet W. H. Auden's 1970 *A Certain World: A Commonplace Book*. Auden, himself citing Chesterton, writes that his book of common places, that is, everyday expressions, is 'a map of my planet', containing something like a 'landscape of dreams', 'the sort of world he would like to make or in which he would wish to wander; the strange flora and fauna of his own secret planet; the sort of thing he likes to think about' (Auden 1970: vii). To this Cavell affirms a Whitmanian belief in having 'revealed a secret planet in revealing myself, a certain errant wholeness, with the proviso that no one's planet contains anything anyone else's may not contain, or does not have the equivalent of; and that their contents are commonplaces, including an aspiration toward the better possibility, which I might call the life of philosophy' (Cavell 1988: 144). Now with respect to these comments, I want (for once) to find Cavell a relatively poor reader, not because what he says is not (mostly) true, and what is more a justification for why recourse to genius often succeeds, but also to emphasize why such recourse fails with respect to the difficult reality of accepting our world, in such a way as to demand that we learn to reach out towards others despite the strangeness

of their ways of wording the world, a most strange world indeed insofar as it includes both the planet of commonplaces and uncommon places like the ISS.

Another way of putting that is that Cavell here falls prey to a certain romantic desire for wholeness. He fails to attend as carefully as he might to the warts and wens of our common and uncommon world. Auden knew what he was saying. *A Certain World* was published just after the moon landing, and its title points to the newly nostalgic sense of the planetary commonplace, which, after the 'out of this world' came into 'our world', rendered the planetary common place but a *certain world*, no longer the 'world' as such. One needs to read carefully to see this. The first entry concerns *Accedie*, which is defined as the 'dejection as felt by wandering monks and solitaries'; in other words, it bears on an admixture of melancholy, alienation, and nostalgia, the kind of feelings elicited when a particular cosmic connection, a common world in which all are united by planetary commonplaces, is no longer the whole of a now uncommon world. But perhaps the reader feels I am projecting too much. The second entry is more explicit. It deals with 'Acronyms'. Auden describes them as 'a typical modern horror', something like an attack on language, and he illustrates their monstrosity via a poem by Towyn Mason: 'Intercom in Nasakom' (Auden 1970: 3, 4). I will not go into the details of the poem; the title says it all. It clarifies Auden's comment that language has by technological modernization, thanks to communications carried out by telecommunications and from outer space, become horrifying, as horrifying as planetary gravity apparently is to astronauts. What is horrifying about it is that it no longer belongs to everyone.

The commonplace book is no longer enough, just as ordinary language thinking in which we rely only on ourselves is not enough. The meanings of 'the meal in the firkin; the milk in the pan; the ballad in the street; the news of the boat; the glance of the eye; the form and the gait of the body' (to quote one of Cavell's favourite Emerson texts, *The American Scholar*), no longer quite hold for the world if we merely return to the 'everyday' planetary common (Emerson 2003: 57). We can no longer claim with all honesty that we are addressing the world, our world, without also taking into account *Intercom in Nasakom*, taking into consideration the fact that in some parts of the world, for example, the form and the gait of the body while walking simply, are simply not what we think they are, because moonwalking just is not what in commonplace language we would call 'walking', nor can it be derived from it through mere projection. That does not mean that there is no place for employing ordinary language procedures, only that what needs to be called upon is not genius, but others, and in addition to others, the technological artefacts on which we stand in a relation of uncommon dependency.

Now I understand this might generate revulsion. It is as if that 'errant wholeness' of the world which was within our possession has now escaped us, leaving us only with what, to borrow a term coined by Gayatri Spivak, I might call our 'planetarity' in a post-planetary world (Spivak 2003: 82). Acknowledging our planetarity implies an acceptance that almost every word which we know how to use in commonplace ways owes a debt to our planetary condition. That it has an unthought dependency on the orientation—and the disorientation—which our uncorrected sense of

'gravity' provides. Our every word thus bespeaks not only a debt to a planet from which we are not self-reliant but also reminds us of the limits of our capacity to rely on the planet alone if we accept that it is our responsibility to respond to the uncommon expanse of our manufactured existential perimeter. That we should learn to so respond I take to be the aim of education.

FUNDING

This article was made possible thanks to the A-STEP 2030 (Attracting diverSe Talent to the Engineering Professions of 2030) project. This project is an EU Erasmus+ project funded under call number 2018-1-FR01-KA203-047854 Grant.

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