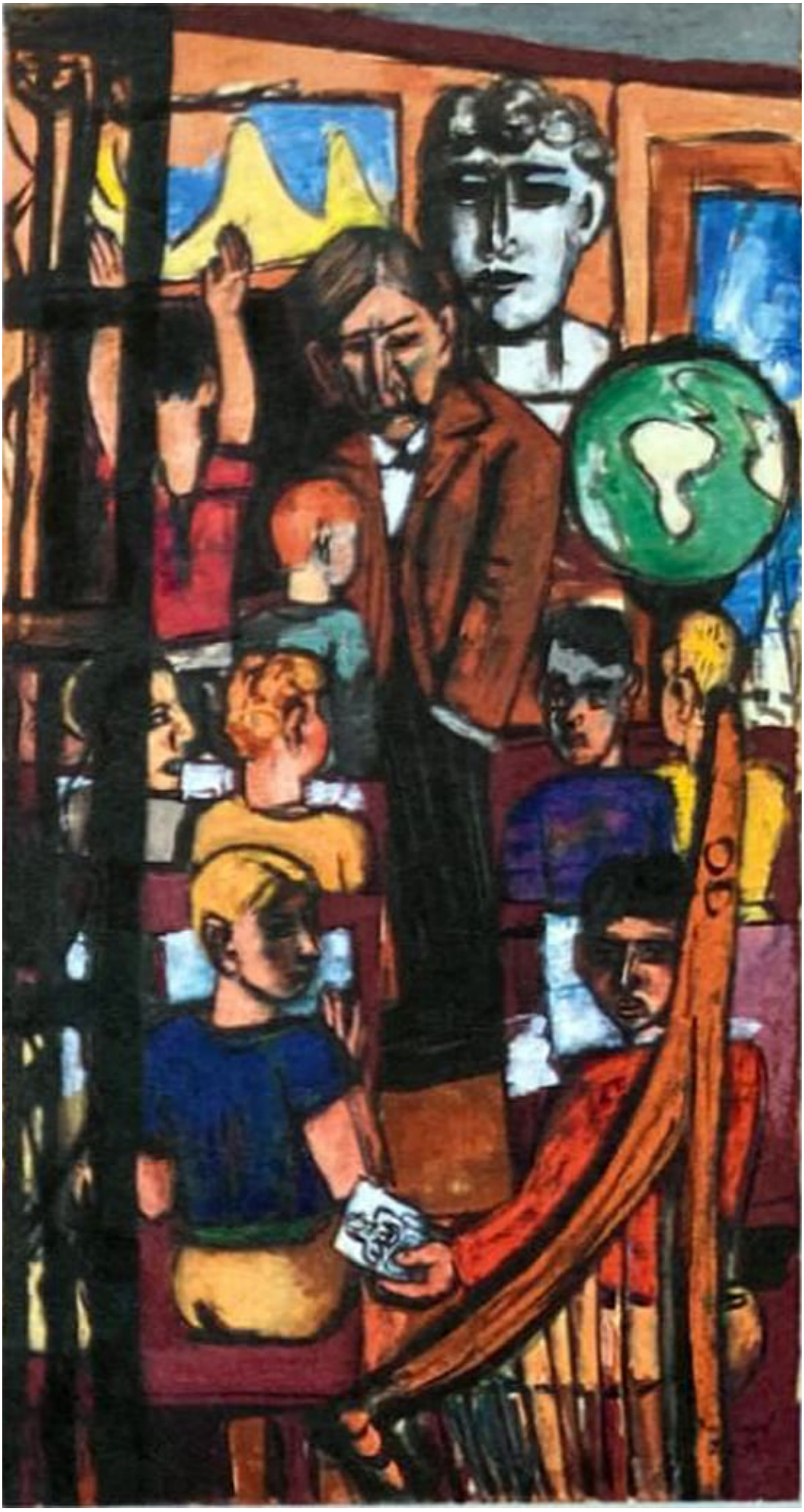
The Purpose of Education

by Christopher Ormell (January 2025)



The Beginning (detail, Max Beckmann, 1949)

Today the scales are beginning to fall from many people's eyes about the bleak, uninspiring schooling which is being routinely imposed by governments onto millions of children around the world. It patently isn't producing wave after wave of school leavers with enhanced creativity, sensibility, stamina and grit—of the kind that we need to keep Western civilisation afloat. We are now, in the 2020s, living in an especially difficult passage of history … one in which levels of anxiety are rising, and which are throwing up problems of a uniquely worrying kind. So it becomes a no-brainer: To meet this challenge, we need better, stronger, deeper education.

In my last contribution to *NER* (November 2024), I looked at what was going wrong with education … focusing onto the imposition of crude behaviourist methods onto schools. In this follow-up, the question I am addressing is *Where can improvements in education come from?* There are some heavy reasons why renewing education is a difficult quest: there are also some specific, doable reforms which would make a much-needed, palpable, immediate difference.

To renew education, we need improved teaching methods—more attractive, more personable, and better targeted, than those of the past. What we are getting, though is soulless, dreary *instructionalism*. It is much *worse* than that offered by the leading schools and colleges of yesteryear. Instructional teaching is inevitably distinctly colder, drier and more boring than the humanities-driven teaching of the good schools of the past. If anything, educational methods have gone backwards … regressing towards 19th century rote-learning, a deadening conformity-assumption, and regimentation. This is isn't progress. It is, however, only one small part of today's total agenda of worrying problems. Those onto whom public responsibility falls, are confronting things such as:

Hallucinating AI, Deepfakes, Global Warming, Brazen Lying, Invisible Algorithms, Conspiracy Theories, Substance Abuse, Antibiotic over-use, Relationship Breakdown, Hacker Blackmail, Fraud, etc, etc.

Each of these issues marks a distinctive crisis. There are many of them bearing down on us. Some dramatic, effective way to let-in light (i.e. sweet reasoning) needs to be found.

Any sign of stalling while dealing with these crises immediately turns the spotlight onto education, because education is the traditional way by which civilised countries have managed to nurture and revitalise their cultures. The current challenge, though, is more daunting than usual. Today the very notion of 'civilisation' has lost much of its former lustre: it has become quite noticeably bland and ill-defined. The arts are in the doldrums, virtue is much scarcer, philosophy has become embarrassingly parochial, science is bogged-down by foggy thinking, math is in the doghouse. We can no longer take anything for granted … including the most supposedly "unquestionable" aims which were previously thought to reflect genuine wisdom.

So we need to address the question: *What is education really for?*

Which immediately triggers the wider question: *What is anything for?*

Pursuing this line of thought, there is the still-more unnerving query—*What is the point of modern living?* —a question with a caustic, personal bite which may unsettle some depressive worriers. If the answer were obvious, this sinking feeling would not arise. So the issue becomes: how can we conceptualise a fresh, worthwhile, balanced aspiration for modern living? Marx famously said that previous philosophers had tried to understand the world, but that for him the only real priority was to change it. This much-repeated claim,

though, was not as self-evident, nor as valid, as it is often assumed to be.

The snag is that *any* uncritical change tends to come unstuck, especially if the innovators haven't thoroughly understood the invisible realities lurking behind the proposal involved. Innovations of all kinds are steps into the dark. So, "prior understanding of the hidden realities of the world" is the *essential precondition* for serious innovation. This is a dangerously neglected truism. Sometime in the late 20th century, the former classic, measured, consensus imperative that *we must try deeply to understand this puzzling world!* was quietly, pragmatically and shamelessly forgotten … A tacit favouring of all kinds of slick, plausible changes … and giving them "their chance," took its place.

Since then we have been inundated with an endless tsunami of overwhelming, ever-more out-of-control, sometimes visibly superficial, innovation.

This, though, has not delivered a more satisfactory world. Indeed this uncontrolled wave of disorienting change has landed us with the worrying slate of existential crises listed above. We seem to have slid into a mindset akin to a state of dizziness. Politicians have frequently joined current bandwagons, hastily pinning their fortunes to fashionable lines of thought. Again and again, though, constituencies which have voted in numbers for change A, have been quickly disillusioned, and have rapidly switched to change B, the one they previously underrated.

Disruption of this kind invites hidden pitfalls. If one insists on introducing swift, decisive, radical change, it will, inevitably, unsettle subliminally expected arrangements, and under-noticed social practices. Unforeseen angst then begins to emerge, and previously unseen downsides start to loom.

An idealistic personal credo of the past was that of *Trying to leave the world in a better state than one found it!* But the standing of this mantra has been sadly eroded by today's universal pragmatism. There is obviously not much oomph in trying to ensure that more people have a materially comfortable life. This may be widely favoured, but it doesn't remove the gloom of an over-arching, darkening sky. It doesn't deliver obviously inspired feelings, still less a "better world". And it leaves open the $64 question *Onto what can people satisfyingly focus next,* after *they've got the basic comforts they felt they needed?*

Let's look at the situation in the distant past … when most of today's classic beliefs originated and began to form. The societies of Antiquity were essentially agrarian, and, by modern standards, extremely poor. Urban life began about 5,000 years ago. The three obvious foci for the seers of that ancient urban world were … group solidarity, self-help and harmonious relationships. A few (workaholic merchants) managed to amass personal wealth, but it was not realistic for the average person to make affluence their no. 1 goal … because to achieve every tiny gain required backbreaking work, as well as calling-for an unusually hardy constitution, and sustained luck … not to mention a capacity to miss-out awkward wars, locusts, floods, earthquakes, droughts and plagues. The first pillar of wisdom in those distant times was that unworldly aspirations make sense: worldly ones often don't. Deeply internalised religion became a norm.

Several millennia later, poverty is now—for some of the lucky—a downside of yesteryear. But we urgently need a new goal, we need a compellingly worthwhile quest to make sense of our lives. So what should we be striving-for? What is going to give our lives some drama, point and meaning? We are dimly aware that an X-factor of some kind is missing: that some unexpected zeitgeist is needed which would put a new spring in our step. And it is not only uncertainty which is blocking the

way. There is an associated ennui—an airlessness and lassitude—arising from not having the faintest idea where to look, or who we should be trying to follow, or onto which goal we should be targeting our effort.

Many tend to feel this void. We are silent, impotent and baffled about what we (or anyone) can reasonably strive-for-next. It is a loss of sensible bearings. It encourages slick demagogues to lurk in the shadows dangling fantasy goals.

So millions of lively, intelligent people around the world, are in a state which might be called "meaning-vacuum." They desperately want their lives to brighten with "authenticity," "significance," "purpose," etc., but they can't even *begin* to see where this elusive new meaning can come from. One sign of today's meaning-vacuum is that hundreds of people are willing to pay large sums to be helped and guided to the top of Mt Everest every year.

We need a big idea—a very big idea—which will blow away a mass of doubt about the human condition, which will re-introduce good feelings and relight the torch of progress.

Pessimism, alas, seems to dominate. Genuine positivity can look like a dream, a deceptive idea. That it should actually materialise, is generally regarded as highly unlikely.

But the history of civilisation has seen many unlikely turns. And an unlikely turn is probably the only way in which a change of education could happen. The good (and also the bad) news is that a radical change in education *has happen*ed in the fairly recent past. The utterly unlikely switch to the progressivism of the 1960s came about mainly as a result of the immense shock of the first module being launched into space (Sputnik 1) in 1957. (The fact that progressivism turned out to be badly flawed, doesn't diminish the jaw-dropping surprise that it happened.)

If we look carefully, there has been a recent much unnoticed,

much under-reported logical earthquake. It started out as a project to solve the nightmarish problems of the 20th century—spacetime and special pleading in set theory. These were dreadful, horrific, bottomless pits of logical incoherence, which cast ominous depression onto the 20th century. (Spacetime imposed a blanket of total impotence onto the human race, because the future was apparently "already there"… and as a result striving of any kind seemed to become quite pointless. Set theory [in math] was flawed from the beginning, and it ended-up turning math (civilisation's former main support) into an 'uncertain science' and ruining its reputation.)

Now these giant unspoken headaches have, at last, quietly, very belatedly, virtually invisibly, been solved.

The big idea which solves them is Anti-Math, a new, wholly unexpected, wholly unforeseen, development. It involves applying the tried and tested logical methods which underly math, to a new building block. (The methods mentioned have transformed math over 2,500 years from rustic tally-bundling to a lofty, metaphorical cathedral of soaring abstruse modern abstractions.) Now a new basic building-block has moved into sight—a new, vast conglomeration of tallies which can be given the same treatment: an immense field of freestanding, unconnected, jumping-random tally sequences.

It means that ordinary math is no longer the *only* abstract modelling medium around, but one of *two* potential modelling methodologies. A new, extremely promising, totally unexpected, hitherto un-guessed, logical paradigm has dawned.

This is a quite unprecedented culture shock. Anti-math suddenly allows us to explain very simply why the speed of light is bounded, why the speed of anything is bounded, why movement-relativity arises, how spatial relationships happen, why Quantum theory reveals an ocean of unpredictability, and why space is three dimensional—all problems which have long

since been written-off by the weary, demoralised gurus of orthodox science.

So science has arrived at a crossroads. It must now completely re-think its modelling agendas. Anti-Math is clearly better suited than math—to describe the unexpected (outside-our-control) random-processes which we need to focus-on, if we are ever going properly to comprehend the mysteries of the human condition. A new kind of illumination is suddenly thrown onto our consciousness, the universe, and our relationship to it. Its arrival can only be a cause for joy: a turning point in history.

This is, in other words, a wholly unexpected break in the heavy clouds which have been latterly getting ominously darker and darker … a largely unspoken gloom that has been getting gloomier and gloomier since the 1880s.

Now we can enjoy a distinctive 21st century re-Enlightenment, a re-lighting of the flame which Heidegger famously declared "ended" in the 1920s.

It brings with it the kind of over-arching change of mood and perspective, one badly needed … radically to reform education in today's dysfunctional schools, stagnating universities and stuttering economies. This New Dawn can, in principle, also shine a bright, hopeful, personable light onto the future.

Dynamic contradiction is another idea which actually emerged, also largely unnoticed, in the 20th century: it recognises that a new kind of contradiction can occur over time, an oscillation of contrary meanings. So maths is not as paralysed as Plato implied. Nor do the mystique-aholic modern apologists of Plato help. Math is—and has always been—humanity's main pathfinder for major projects, its main source of *confidence* when building local "brave new worlds." Khufu already knew this in Ancient Egypt, 4,000 years ago. Math's main role is to illuminate the 100% predictable consequences (implications) of

new projects, campaigns, inventions, etc. This was what Charles Peirce brilliantly perceived in the 1890s, and should have been hailed for. But the math establishment of the day chose to turn a distinctly blind eye. They didn't want to know.

The bad news is that both the compromised elites of math and science are, at this moment, in denial. A perception seems to have arisen which lazily presumes that anti-math is "opposed" to math. This is absurd, because many of the key operations of anti-math depend on ordinary math, and almost all its definitions rely, to a degree, on math definitions. Yes, the quasi-religious mystique side of math has taken a hit. It was formerly thought that math was utterly profound, utterly unique—as the only 100% abstract modelling medium there ever was, or ever could be. This used to be regarded as wholly unquestionable, wholly unchallengeable gospel truth. It was the most certain fact we could ever know. The only trouble is … it isn't.

So a new kind of 100% abstract, 100% lucid, 100% rational wisdom has definitely arrived. It offers the only possible credible kind of picture of physical reality. The ultimate constituents of the universe must be active and 100% random in their activity. (Otherwise, if they had the tiniest traces of patterned behaviour, science would still need to *explain* this …. In which case they wouldn't be the 'ultimate constituents.') The Deniers will, no doubt, wake up and, when they do, it will be possible once again to renew our public sense of optimism about the future.

The immediate situation in education, though, is dire. Radical reforms are urgently—very urgently—needed. Education, as a way of growing the energy and range of the minds of the youthful generation, can only happen by feeding the youthful cohorts with a strong sense of positivity and fresh hope about the future. Eventually a renewed civilised lifestyle can be expected. It will probably be quite similar in terms of

overall confidence, rectitude, reliability and security to that of bygone days, when relaxed, accepted, *believed* Moral Code ruled OK.

So what is the next step? What can practically happen?

Genuine, mind-expanding education can be, must be, somehow, renewed. There is no time to spare. Today there are too many ominous signs of lack of grip growing among the young. It is not their fault. They are not being properly socialised into understanding the immensely tricky, sophisticated concepts which brought us to where we are.

The notion being unconsciously aired in the media—that education is principally the process by which commerce might get a useful workforce—this is self-destructive because the whole point of education is to develop the *learner's* mind, not to lay-on well-trained operatives for corporate business. Of course corporate business needs operatives who have been well educated, but if you give children the idea that their school experience is "all being done for corporate business," many are going to switch off.

Letting another wasted generation pass-by would create a heavy burden, slowing down, possibly snuffing-out, progress. Getting youth to *see* the *reality* behind today's hyper-sophisticated world cannot be ducked for much longer. Everything youth are being taught is, at present, being ham-handedly controlled by crudely positivistic, flawed ideologues: they are fixated onto basic rote-learning and gaming exams, and openly saying that it is "training needed by corporate business."

Within education, the subject most likely to wake-up is math. The depressive mood of the postmodern pandemonium has borne down badly onto math in schools. (Few bright youngsters can now see any point in trying to acclimatise themselves to operating a drab, grey, awesome semantic routine with the aim of eventually becoming professional mathematicians, people who

are no-longer publicly appreciated.)

Some first signs of an intellectual revival have appeared. But they have not yet been widely acknowledged. There has not even been an official suggestion that math's central rationale changed completely with the arrival of digital electronics. (The computer establishment have done their damdest to under-state, underplay and under-credit math.)

This aberration will, no doubt, eventually be nailed. The Peircean concept of maths—as the science of hypothesis—must soon become society's principal pathfinder for material, economic and scientific progress. It will need to be widely appreciated, digested and taught.

To teach it, a mass of new learning materials will be required. This is where tangible progress can start to happen. It will take the form of 'Narrative Math,' which will pose new, do-able, fully coherent, fully realistic, fully believable scenarios capable of being unravelled using easy math. (A new profession, somewhat similar to advertisement copywriting, will be needed to produce thousands of these vivid narrative problems. Only believable, vivid, realistic, stories will do the job. They will need Agatha Christie-type twists and turns. Existing math materials—supposedly "applications" —which relate to the real world are almost invariably extremely dull and shabby. They typically lack any hint of relevance, balance, authenticity or realism. Building this new repertoire of fascinating realistic problems will take time, but it is a doable, practical project. (The present author led a school project, *Mathematics Applicable*, which ran successfully at Reading University (UK) for ten years in the 1970s on these lines. It was unfortunately dumped when Mrs Thatcher came to power (1979) and decreed in her wisdom that "all experimental school maths was OUT!".)

Changing over to Narrative Math will take time. Materials will have to be widely tried, and experimental courses will have to

be staged. Progress here can happen by degrees. Socialising children into the illuminative point of math is the name of the game. Approaching the subject in this way allows learners to see clearly—for the first time—what simple math means, what it achieves in the real world, and how it works.

The hardest part of this change will be getting the existing teacher workforce to realise that looking at math through the spectacles of Platonism will no longer do. The fundamental reason why the human race has practised—and highly valued—math for twenty-five centuries is not its charming quest for formal elegance and aesthetics (as most professional mathematicians supposed). Khufu already knew it was not this 4,000 years ago. The illumination which springs from math was the only possible source of the down-to-earth *confidence* Khufu needed to build his Great Pyramid. Plato was born more than 2,000 years later, and should have known better. But somehow Plato's myopia, unworldliness and introspection must have blinded him from seeing this basic truth. (The movers and shakers of history, though, rejected Platonism, and used math again and again to plan and create the confidence needed to sustain their projects.) So a difficult, deeply entrenched change, of basic sensibility, is required in the existing math teaching workforce. They mostly originally chose maths as their career because they *hated* the messy, gritty, awkward side of real life: math was, for them, an escape … to elegance, precision, certainty and order. This has not served them well. And it has turned rather into a recipe for the public's presumption of the meaninglessness of math.

Another practical reform in education—which must also surely come soon—will be to use computers to give every pupil the chance to look back at the end of the school day, and to discuss privately what they have achieved retrospectively … with a sympathetic screen-voice like Alexa. This should become standard practice for the last 30 minutes of every school day. Such a computer-powered quasi-Alexa could ask questions like:

Which lesson did you enjoy most today?

What do you remember most vividly about your lessons?

Which lesson was most difficult?

Did you miss anything? What was the difficulty?

Could you understand X, Y, Z…? Etc, etc.

(This is not, incidentally, another dodgy idea motivated by a desperate need to exploit expensive, advanced IT, like driverless cars and growing vegetables in the metaverse. It offers, rather, something important which we have never previously had—a proper source of feedback on how well our teaching is "going over.")

The software will, of course, need a built-in learner-friendly air. We want learners to *enjoy* chatting with this re-assuring, affable, friendly, personable Alexa. (The teacher will then be able to use these recordings to get a detailed, in-depth picture of how well her/his lesson went down and with whom.)

The priceless benefit which this innovation should bring, will be to inform the teacher—in rich detail—what has "stuck" in each learner's mind. (At Eton in the UK, housemasters quiz their students retrospectively like this.) This is a kind of vital feedback which teachers urgently need, and have, mostly, previously wholly lacked … to ensure that each learner is consistently gaining new, well digested, fully internalised, fully assimilated, knowledge, and hopefully, gaining the grip, confidence and inexhaustible curiosity … needed to live a subsequently satisfying life.

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