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TAKING INTELLECTUAL HUMILITY TO THE NEXT LEVEL

Species-based importance, human maturity, and deep time

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ABSTRACT

In this paper I distinguish two levels of intellectual importance, derived and underived, showing how the former can be species-based. Then I do four things: first, identify a neglected way, stemming from perceived human intellectual maturity, in which many of us are vulnerable to a sense of species-based importance; second, show – in part by appealing to facts about deep time – that we have no right to this sense and so evince a failure of intellectual humility if we acquiesce in it; third, defend the view that the claims of intellectual humility on those who would be overall rational are not in this regard overridden; and then, finally, gesture at some of the consequences of this result for inquiry.

At least a part of humility involves believing (or otherwise taking to be true) only what there is good reason to believe concerning one's importance. This is confirmed by the long list of terms we use to pick out ways in which people commonly *fail* to be humble, many of which apply the notion of self-importance. Consider, for example, 'arrogance,' 'egotism,' 'grandiosity,' 'snobbishness,' and 'haughtiness.'

Although this is often not noticed, one type of perceived importance that may warrant such labels does not depend on personal traits or similar features of a person but rather comes entirely from membership in what is regarded as an important social group or organization or other similar entity – think here of belonging to the aristocracy in nineteenth century Britain or being a cheerleader for the Dallas Cowboys. Entering a room, someone whose self-importance is of this neglected sort may expect special attention just because of such an association. Without committing ourselves to the idea that these two exhaust the main differences within the class, we might call the latter sort of importance *derived* or *second-level* importance and the other, accordingly, *underived* or *first-level* importance.

In the case of intellectual humility (IH), the sort of importance at issue is of course intellectual importance. And just as in other cases, it is first-level or underived intellectual importance that tends to get all the attention. When we speak of people as intellectually arrogant or grandiose we tend to think of their self-importance as tied to personal traits such as great intelligence. But it's not hard to see that second-level intellectual importance should matter to us too. Indeed, no one can be all-things-considered intellectually humble without appropriate attitudes concerning *both* derived and underived intellectual importance. And it is quite possible to exhibit IH at one level but not at the other. Someone might, for example, be quite fine, IH-

wise, in other respects, managing her various intellectual gifts appropriately, while letting an invitation to join the Royal Society go to her head.

Now we all belong to various intellectually relevant groups (or similar entities). In this paper I shall focus on a rather large group-like entity to which all of us belong, namely, our species: *Homo sapiens*. It is easy to ignore our thinking – or, more commonly, assuming and presupposing – about matters at the species level, so we shouldn't be surprised to find neglected issues about IH lurking here. And it is in the nature of the case that if *any* of us is thinking in the relevant way at this level, probably *many* are, so these issues may also be of unusually wide relevance and significance. Let us call the importance at issue here, a very general form of second-level intellectual importance, *species-based* importance. My plan is to do four things: first, identify a neglected way, stemming from perceived human intellectual maturity, in which many of us are vulnerable to a sense of species-based importance; second, show that we have no right to this sense and so evince a failure of IH if we acquiesce in it; third, defend the view that the claims of IH on those who would be overall rational are not in this regard overridden; and then, finally, gesture at some of the consequences of this result for inquiry.

I.

So why should we think that there are human beliefs or assumptions or presuppositions, in which many of us share, ascribing to us intellectual importance of a maturity-dependent species-based sort? What does the latter expression even mean?

Let's start with the idea of maturity; it will loom large here. Adopting a fairly loose formulation for a notion that is generally held unreflectively, and so does not admit of much precision: someone who, at a time, accepts that the species is intellectually mature holds that, by that time, the species has reached a quite fully developed intellectual condition – that humans are then intellectually 'grown up,' approaching the tasks of inquiry as adults. What we have here, I suggest, is something like what John Searle (1983) has called a stance or pretheoretical commitment or preintentional assumption or fundamental background presupposition manifested in behavior. ('Something like': I will not assume that everything Searle says about related matters is apt as I indulge in this borrowing.) As we'll see, our mental and other behavioural tendencies – and tendencies of omission are here included as behaviour – show that many of us are taking our intellectual adulthood for granted, though whether any or many of us have actually formed the corresponding belief is another matter. Call this *the Maturity Presupposition*.

The Maturity Presupposition includes the idea that we have developed about as far as we ever will in inquiry – that, in some blurry sense, there is not much further to go. The blurriness here is represented by an important ambiguity in this content, which a more thorough treatment would have to go into: is the thought that we have developed about as far as *we* will ever go, or about as far as *there is* to go? ¹ The physicist David Deutsch (2011, p. 444) suggests that it is the latter: "a persistent assumption remains that our existing theories are at or close to the limit of what is knowable – that we are *nearly there*…" (emphasis in the original). And, of course, this is an assumption we can find at virtually every historical period of inquiry. Did Aristotle think a great deal about how someone like Kepler or Newton might come along, and did they think much about the possibility of an Einstein?

¹Elsewhere, in a developing book manuscript on *The Humility of Reason*, I do go into these things more thoroughly.

Evidence of the Maturity Presupposition is not hard to come by. I begin with some general historical and psychological points. Before the discovery of evolution, there was little to counter relevant religious influences, such as the strong sense that we are made in the image of God and thus prepared to understand widely and deeply. And after its discovery, we could still think of ourselves as the most highly evolved and indeed as in some sense the 'goal' of evolution. Alfred Russel Wallace (1889, pp. 476, 477), co-discoverer with Darwin of natural selection, was comfortable speaking of "all this glorious earth" which "for untold millions of years has been slowly developing forms of life and beauty to culminate at last in man." Michael Ruse (2012, p. 108) reproduces a drawing of the tree of life by Darwin's German contemporary and promoter, Ernst Haeckel, which terminates with 'MAN' at the top. Without sensitivity to the actual bigger picture, not thinking of other evolutionary possibilities, we have often treated ourselves as representing the end of the evolutionary story, leaping from evolution's clutches intellectually fully formed. After all, here is this sequence of hominin species – it looks like a sequence to us: we tend to ignore the bush-like structure of much hominin evolution, with branchings and dead ends as well as the familiar forward movement – with a continual increase in brain size and complexity, eventuating in the species named for the quality of its brain, and whose brain is the largest, *Homo sapiens*. We clearly have outdone everyone else, simply in biological terms. But if you want, you can add cultural evolution, complexly interwoven with biological, and recite the list of intellectual advances leading up to the present (whichever present that may be), so different from even the recent past. How could our intellectual status *not* reflect maturity?

Some slight evidence for the Maturity Presupposition and, more intriguingly, a way of understanding why it persists come from the social sciences. What I have in mind is a cognitive tendency identified by psychologists as the 'end of history' illusion. The relevant paper is by Jordi Quoidbach, Daniel T. Gilbert, and Timothy D. Wilson and appeared in the journal *Science* (2013). It's about how as individuals we relate to the thought that important changes are ahead of us as opposed to behind. In brief, we tend to deny this. What six studies of more than 19,000 participants confirmed is that "predictors aged a predicted that they would change less over the next decade than reporters aged a + 10 years reported having changed over the same decade" (96). Of this illusion the authors of the *Science* paper report as follows: "Although the magnitude of this end of history illusion in some of our studies was greater for younger people than for older people, it was nonetheless evident at every stage of adult life that we could analyze. Both teenagers and grandparents seem to believe that the pace of personal change has slowed to a crawl and that they have recently become the people they will remain. History, it seems, is always ending today" (98).

The authors hazard some explanations of this phenomenon. And I think these may afford some insight into why we might be subject to an 'end of history' illusion writ large too, at the species level, and in a maturity-dependent way. Most obviously, people tend to think in a laudatory manner about their own personalities, values, and preferences, and having reached such an elevated condition, are likely not to consider the possibility of change. But, drawing on the well known work on cognitive biases and heuristics of Kahneman and Tversky, the authors interestingly also point out that imaginative work requiring that we look ahead is *harder* for us, mentally, than thinking about the past, which is aided by memory. "If people find it difficult to

²Part of the problem here may be mistaken physics intruding, as when Wallace says that the sun's cooling and the elimination of all life on earth will occur in "a not very distant future" (p. 477).

imagine the ways in which their traits, values, or preferences will change in the future, they may assume that such changes are unlikely. *In short, people may confuse the difficulty of imagining personal change with the unlikelihood of change itself*, (my emphasis) (98). Here too we have something that transfers easily to the higher level where I am claiming something like a Maturity Presupposition can be found. People may confuse the difficulty of imagining future events which greatly enhance human inquiry with their unlikelihood. (This would also account for the fact that those few who take the future seriously are mostly science fiction types with good imaginations.)

Now for some more detailed evidence, though I am forced here to be brief and summary. What I have in mind are *signs* of what I've described – *manifestations* of the Maturity Presupposition in our intellectual behaviour. I think several forms of such behaviour can be distinguished:

- The concept of *belief* and thus of grasping truth is arguably the central concept in inquiry generally and also in philosophy; and our beliefs are treated somewhat monochromatically, without distinctions among different kinds of beliefs or different standards, perhaps not all presently satisfiable, developed for their assessment. Moreover, few positive but more modest alternatives to belief have ever gained serious attention.
- Conformity to 'available' evidence is commonly thought to suffice for justified individual belief across all areas of inquiry today.
- Fierce competition lording it over collaboration (also when identifying available evidence) is considered unexceptionable even when no instrumental value for inquiry is envisaged by participants.
- There is no recognized 'problem of future generations' in relation to inquiry, either inside or outside philosophy.
- Insight on even the most profound matters is assumed by most to be in principle attainable by us today: comprehensive beliefs are held on all sides and hardly anyone in philosophy objects or cautions.
- Some of us periodically worry about a lack of progress, in a sense that includes getting issues finally settled, and this particularly in philosophy, wondering whether we should give up.
- Challenges to the methods or results of inquiry by radical or non-radical skeptics (including mysterians) are commonly viewed by the challenger as having deflationary consequences.

Between them, these emphases, non-emphases, assumptions, and other behaviours leave hardly any human inquirer untouched. I cannot here discuss them thoroughly. But do notice this important related point. In each case we find no discussion of matters pertaining to maturity/immaturity where you would expect to find it if maturity were not simply being presupposed. On belief, on available evidence, and indeed wherever the behaviours I have outlined are bound up with relevant discussion, we would expect that such discussion would explicitly take account of – seriously entertain – the possibility of our intellectual non-maturity, if the Maturity Presupposition were not being made. For this possibility is obviously rather important. But in respect of none of these behaviours has discussion of these things yet occurred. And that is itself a form of behaviour providing evidence of the Maturity Presupposition.

Now it may be thought (despite what is suggested in my final bullet point above) that skepticism or the various related positions in epistemology, such as mysterianism, fallibilism, the conciliatory position on peer disagreement, or the pessimistic induction (or meta-induction) in the philosophy of science, give the lie to what I've said here. But even radical skeptics appear to

be making the Maturity Presupposition: why should we give up on inquiry if it isn't being taken for granted that our present faculties, methods, results, etc. are about representative of what we'll ever be able to do? The assumption of many skeptics seems to be either that we have already determined that inquiry goals will not be reached by us and should no longer be pursued, or that we can sensibly identify with arguments practically leading to such a result. The second disjunct here is meant to accommodate the Pyrrhonians. Pyrrhonians will avoid anything that could be construed as a judgment, and so will not judge their behaviour to be sensible, but they do not thereby avoid a pessimistic version of the Maturity Presupposition (which may, after all, be relevantly tied to their behaviour whether they are clearly aware of it and judge it to be correct or not).³

How about the other positions mentioned? All of them tend, like skepticism, to be based on concerns about limitations of our constitution which, even when viewed as evolutionarily conferred, are not linked by their proponents to the idea of inquiry's immaturity. The overlapping concern is with the possibility of *error* in our present beliefs, but it generally has a different grounding, which can be treated *synchronically* whereas talk of stages of maturity inevitably introduces large-scale *diachronic* considerations. Even when fallibilism is made more demanding than generally it is, and given a temporal component involving serious openness to changing one's mind on the basis of newly discovered reasons over the course of one's life, we still don't see a discussion of higher-level maturity issues arising at the species level.⁴

So much for an explanation and defense of the emphasis of this paper on what at any rate many humans tend to take for granted about the intellectual *maturity* of their species. How is all this related to the idea of derived intellectual *importance*? Well, people in the grip of the Maturity Presupposition will likewise take for granted the truth of such propositions as the following:

Power. Human reason is very powerful and capable of deeply penetrating the issues we wish to understand.

Awareness. Fewer important issues remain to be noticed by us than have already been noticed.

Breadth. The rational abilities of human beings are not one-sided or unidimensional but rather are widely and undiscriminatingly applicable to the solution of intellectual problems.

Self-sufficiency. The efforts in inquiry of human beings need little help from such future manifestations of intelligence as the planet may see.

⁴ See, for example, Levi (2012), pp. 4-5. Charles Sanders Peirce, one of the parents of pragmatism, comes closer to relevant concerns, but what is relevant in his work has also received limited discussion. Stanford (2006), in its discussion of the pessimistic induction, also comes close. But I think Stanford misses the larger issue: he is still focused on the *history* of science and on what might in a sense be available in our evidence but unconceived right now.

³ See *Outlines of Skepticism* and especially *Against the Mathematicians*, by Sextus Empiricus, in Bury (1939-1949).

Non-delay. For most of the propositions on fundamental matters that we find intellectually attractive, there is no epistemic need to wait for future confirmations before becoming in the deepest way committed to their truth.

Credit. If and when a complete understanding of the world is realized, human beings will deserve credit for getting us there.

Such propositions as these impute great intellectual importance to our species. We are the ones who reach vital insights and understanding. Many well known points about how we see ourselves as sharply distinguishable, value-wise, from other species, including previous hominin species, are applicable in this context as much as anywhere. Another way of seeing the importance-related content here is to note that anyone who thinks this way, gleaning importance for herself from such a thought, but who is unjustified in doing so will display some of the familiar humility-related and importance-oriented 'vices' mentioned earlier. If her behaviour unjustifiedly reflects the thought expressed by Power or Awareness, we have arrogance or grandiosity; if Breadth, conceit or presumption; if Self-sufficiency, hyper-autonomy, haughtiness, or overconfidence; if Non-delay, overswift judgment and being more concerned for closure than accurate cognition; and if Credit, vanity. All of these attitudes in the first instance have the species in view, but insofar as one thinks of oneself as sharing in the particular sort of importance at issue, we have a corresponding shade of self-importance.

But do many of us really think this way at all, showing a derived, second-level sense of intellectual importance? Well, imagine how you would feel if you entered a room which had in it various members of previous hominin species –here's Lucy, and over there is Ardi – and came to realize that their movements or sounds indicated curiosity about their environment or the world at large. Wouldn't you feel immensely superior in the relevant, intellectual respects? Wouldn't you want to be able to enlighten them? Furthermore, would it so much as cross your mind that absent from the group are representatives from a possible species three million years hence, as far advanced beyond ourselves as we are beyond the australopithecines, who might be able to tell us a thing or two? The sense of self-importance you'd feel in such a situation is not first-level, underived. For you wouldn't in the relevant respects distinguish between yourself and any other human who happened to be in the room. The importance you'd feel is rather second-level or derived importance. More specifically, it is species-based. More specifically still, what we have here is a maturity-dependent species-based sense of intellectual importance. Since it need not be manifested to exist, it exists also in the real world, devoid of rooms with mingling members of assorted hominin species.

But it doesn't really matter whether we or any other humans in the history of inquiry have actually had such tendencies. What matters, or matters more, is what we should now do – now that we have all the above propositions before us – in relation to ideas about the intellectual maturity and importance of the species. If, thinking about them, we inquirers of today also

⁵They are not the only relevant propositions that would do so. Normally, self-importance will here mean thinking very positively about our intellectual accomplishments, but it needn't do so. Skeptics who are much more negative can also exhibit it, as when, for example, they suggest a failure to achieve some significant intellectual goal that many have pursued or may yet pursue while unjustifiedly assuming that success depended on us.

⁶Here I am indebted to Roberts and Wood (2007).

acquiesce in them, then we will now regard ourselves as having intellectual importance of the relevant derived sort even if no one in history has ever done so. And if it turns out that there is no good reason to believe these propositions, then by acquiescing in them – a tendency to which we are peculiarly vulnerable – we inquirers of today will evince a failure of IH.

II.

So let's consider whether in fact there is good reason to believe any of the propositions about human intellectual maturity and importance we have surveyed. I shall argue that there is not.

As suggested earlier, in the context of a scientifically uninformed worldview, for example, a scientifically uninformed theism, such propositions might seem to receive a justification. But today inquirers have to reckon much more seriously with science, and particularly with what science has to tell us about geological or 'deep' time, including the deep future – something we tend to ignore, perhaps because of the operation of factors like those sketched earlier in connection with the 'end of history' illusion. Imagine a drawn time scale in which every ten-inch line segment represents a 250,000-year period. This leaves exactly one tenth of an inch for the 2,500 years of systematic rational inquiry in philosophy and science before the present that we in the west can claim. Even as much time after as before the present for continuing human inquiry would be radical in its potential results while clearly unremarkable within an evolutionary picture. And a whole lot more time would be equally unremarkable. The average lifespan of mammal species is about a million years, so even if we only hit the average, 800,000 years remain. Thinking even larger, but still well within what science makes realistic for intelligence on our planet (though of course only as a possibility, not as anything we could reasonably be assured of): a million years after the present would take up four ten-inch segments, and the billion which science tells us life on our planet may yet have would require 4,000 teninch segments, which amounts to 3,333 feet or about two-thirds of a mile! One needs to spend some time reflecting on that possible two-thirds of a mile against our actual one-tenth of an inch.

This imperative involving deep time will figure importantly in what is to come in the present section of this paper. Here I shall argue that a host of future scenarios incompatible with human intellectual maturity cannot be ruled out, that is, there is no good reason to disbelieve any of them. Accordingly, anyone who reflects on these things is left without a good reason to deny that the relevant propositions about human intellectual maturity or importance in the larger scheme of things are false.

(i) *Unavoidable Delay*. Let's start with the following possibility: 'Many more goals of systematic inquiry than have already been attained by us will be attained much later, because they require much more processing of the relevant information, or depend on information not available after a mere 2,500 years since the relevant events haven't yet occurred.' Consider, for example, how a full understanding of *ourselves*, of our species, cannot be reached until our further life, whatever it may include, has come to be. More generally, a full understanding of *nature*, and in particular of how it evolves over the next millions of years (include here whatever changes will be wrought in it by technologically more sophisticated humans or machine intelligence), cannot be achieved until after that time has passed.⁷

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⁷ The fact that our planet has already passed through most of its life-sustaining period might be thought to have relevance here, showing that in this respect less remains to be understood than has already been grasped. But such an assessment is over-simple. We should, for example, expect that further developments in technology will both change the natural world in ways never seen before and permit a deeper understanding of the *past* than has so far been achieved.

- (ii) Alternative Sorting. Consider now the following proposition: 'There are very many alternatives to the most detailed and comprehensive theoretical accounts that are presently proffered by scientists and philosophers, and the larger proportion of deep truths humans have it in them to discover will emerge only after a much longer period involving the sorting and discussion of these alternatives.' In other words, we may have managed in a relatively short period to pluck the low-hanging fruit (and the success of science reflects this), but the rest will require a lot more work.
- (iii) Alternative Methods. Another possibility draws on how things might go for us in relation to methods: 'Some alternatives to present ideas yet to be discovered will allow for the development of alternative methods, and just by luck we will miss the most powerful and productive ones, responsible for the greater heights of human intellectual achievement, until much later in the game.' We might at any time be subject to an intellectual brand of bad luck, as disconcerting in its effects as any other. Evolutionary studies reveal that luck has a great deal to do with our being where we are now!
- (iv) *Disruptive Technology*. Here is another clear and relevant possibility: 'New technology will enable more rigorous testing of the most comprehensive human ideas, with the result, over 800,000 years, that because of repeated disruptions by new technological developments, at least as many such ideas are given up as survive.'
- (v) *Inaccessible Causal Path*. Another candidate emerges from the awareness that we are subject to a sort of inevitable investigative bias: 'Discovery by us of the most important or at any rate the larger number of inquiry-forwarding questions we ever discover will require entering one or more unique and until late in the game inaccessible causal paths.' When pursuing inquiry we are perforce following one or another path instead of others. Those others can, as a side-effect, become quite inaccessible to us, at least while we continue on as we do and this even if what we would find were we to follow them would require no more in the way of capacities or concepts than is required or employed in the pathways we do follow.
- (vi) *Positive Synergy*. The next possibility exploits the following idea: 'Rather than a unique and inaccessible causal path, what will long postpone the greater part of the intellectual development that our species experiences is a particular and difficult-to-achieve *synergy* between such things as capacities and concepts acquired, questions noticed, and goals of inquiry achieved.' Perhaps some particular concept, say, about consciousness, awaits the loss of one or another conceptual bias, and when acquired will open up new questions which we can pursue to fresh and critical discoveries using only the capacities we already possess.
- (vii) *Negative Synergy*. But there is also the possibility of a negative synergy. We are still in the condition of not having found much or adequate room, in serious discussion, for the voices of women; and we have certainly not yet outgrown violence this represents a general and non-intellectual human immaturity that may have a bearing on our intellectual status. What this means is that half the species is not yet adequately represented in inquiry, and that collaborative and congenial intellectual work is often interrupted or delayed or prevented by overly-aggressive criticism or competitive impulses. Another way to see the point is to think about intellectual virtue and vice. That we often fail to cultivate or exercise *moral* virtue is evident; moral vices are everywhere displayed. But moral virtues often have intellectual counterparts, and so do moral vices. (The virtue of humility is of course an example.) And intellectual vice is perhaps as common among us as moral vice.

The present candidate for possibility must be understood against this background, together with the assumption that *a great deal of improving in those areas might occur over periods as long as 800,000 years*. It goes like this: 'An ameliorable negative synergy between

our various immaturities and between them and various facets of our intellectual life is making it the case that much more intellectual development will occur in the future than has yet occurred.'

(viii) *Positive Neurological Alteration*. Nick Bostrom (2014, p. 57) suggests that there are possible natural evolutionary changes involving organic beings such as ourselves – say, another innovation of comparable impact to the spoken language that emerged some 50,000 years ago – that might be sufficient to realize something worthy of the label 'superintelligence' in humans. Both Bostrom and other authors have argued that relevant neurological alterations might be achieved by human design, and, given the speed of present technological development, this is not implausible: biotechnology leading to significant cognitive enhancement is already foreseeable. Now 800,000 years is more than enough time for such alterations to occur, whether naturally or by our design, perhaps more than once. So here's the present proposition: 'Positive neurological alterations will occur in a form that allows us to do much better, intellectually, in the future than we have done in the past, either by allowing us to transcend some present evolutionary limitations, or by revealing to us whole landscapes of intellectual opportunity we had not foreseen, even at the heights of present scientific accomplishment.'

Each of the propositions I have here declared possible – that is, such as there is no good reason to believe false – provides a way of seeing that the maturity and importance claims above might *well* be false, in a sense removing any good reason to believe them true. And another way of showing this emerges once we have all of the distinct ways of doing so out in the open. For now we can also refer to the relevant *disjunction* of those ways, and so provide an even stronger basis for the conclusion I have been defending.

We therefore have good support for a sort of skepticism, but notice that it is a *new* sort, focused narrowly on propositions about our maturity and derived intellectual importance. Being based on the success of science, and opposed to undue intellectual pessimism as much as to undue optimism, it brings no aid or succor to a worrisomely general sort of skepticism, though it may call for a reconception of the intellectual task going forward and perhaps for retrenchment in ways I have no room to discuss here.⁸

I give the last word on these matters to Konrad Lorenz (2009, p. 246): "Being biologists we are modest regarding man's position in the totality of nature, but more demanding in regard to what the future may yet bring us in the way of knowledge. To declare man absolute, to assert that any imaginable rational being, even angels, would have to be limited to the laws of thought of *Homo sapiens*, appears to us to be incomprehensible arrogance."

III.

Arrogance, indeed. This, and various other intellectual humility-related vices would be involved in the acceptance of such propositions about human intellectual maturity and importance as are listed above. But can the claim on us of IH in this regard rationally be overridden? We do not need to decide whether we are giving up IH or conceiving it less demandingly if one or another purported overrider is accepted as such. The point I want to respond to here is just is that any version of IH requiring that we give up on maturity is not worth the price, intellectually speaking.

Let's consider some candidate overriders in turn.

⁸Indeed, I think that traditional skepticisms will lose their power when all of the relevant adjustments have been made. This and related arguments are developed in *The Humility of Reason*.

O1. It is only by thinking more of themselves than was strictly appropriate that humans have been able to make strides in inquiry. Such thoughts were essential to their *motivation*. We need to think in the same way if we want this to keep happening.

Suppose the opening idea here is correct. The idea that we today must think in the same way to continue making strides nonetheless seems false. Having made large strides by thinking ourselves mature, we may now be motivated to continue simply by *looking at those large strides*, and while humbly giving up any thought of maturity.

However perhaps it will be said that those 'large strides' will cease to *look* large in the context of deep time, if we give up the idea of maturity. And so they will cease to motivate. Three thoughts in conjunction pose a problem for this view: first, that if our strides cease to look large it will be because we are thinking in absolute rather than relative terms; second, that the idea of maturity isn't here given up in the sense of *rejected as false* and so even large strides in an absolute sense remain epistemically possible; and third, that there is no reason to think that the fact of having made relatively large strides and the realization that solid performance on an absolute scale remains epistemically possible will not be sufficient to motivate inquirers looking for a meaningful past contribution to inquiry who love the truth and out of humility refrain from accepting any maturity proposition.

A closely related thought has it that a maturity view is needed because we have to think ourselves *capable* in relevant ways if we are to be engaged in inquiry:

O2. To do inquiry at all, at any time, we must suppose that we are *up to it*, adequate to its tasks. And this will require one or another maturity proposition to be accepted.

It is true that a certain intellectual optimism is needed for the health of inquiry. But there is no reason why this should not be made *temporally and evolutionarily sensitive* rather than insensitive. And when this is done any seeming reason to accept our maturity disappears. For all anyone has to assume is that we are up to what's required at our stage of inquiry, which is temporally and perhaps also developmentally the earliest.

Here's another potentially overriding consideration, which introduces the possibility of distraction:

O3. The deep future would have to come into my thinking in a much bigger way if I gave up the maturity view on such grounds as have been presented. But thinking about the future is only a *distraction* from doing what we can do *now* in inquiry, which must inevitably be done on human not scientific timescales. For example, I need to meet Joe tomorrow to discuss a grant application, and I'm scheduled to present at a conference in May.

However thinking about the future would be a distraction only if it had to occur just when immediate events are pressing and if it were *unrelated* to the decisions I have to make about how to conduct myself from day to day in a human world. Neither of these things is so. In particular, if we think beyond maturity, the whole framework of inquiry may be affected in ways producing consequences for whether it is Joe or Josette I should be talking to tomorrow, whether what I have applied to do is strategically appropriate within my area of research, whether the conference in May is worth going to, and so on. The claim on us of the species-based argument is not successfully countered here.

A further candidate consideration, however, suggests that the reorientation required by giving up maturity will be inordinately difficult:

O4. Ceasing to accept the maturity view would throw our main cultural markers – the Enlightenment, the rise of science, naturalism, postmodernism – all out of kilter. In the larger scheme of things they might have a quite different significance than they do for us, against the backdrop of maturity. Our narrative might be completely off. And this would be profoundly disorienting.

It could indeed be disorienting. Whether living with such disorientation during a transitional phase is worth it could fully be determined only upon considering what the philosophical *payoff* of a new framework or new narrative might be. This cannot fully be dealt with here. Of course even right now we can offer the point that inquirers who love the truth should be prepared to accept disorientation for its sake, and it might be *true* that maturity views are *false*. It is for this reason not easy to see how we could have what is needed here if what we need is a way in which missing out on large-scale evolutionary humility would be good for inquiry.

But how about this point, which shifts our attention to the alleged impracticability of weaving such humility into inquiry?

O5. Our present inquiries are shaped by past and present intellectual realities presupposing our maturity, and so we would have to *cease* our present inquiries should we cease accepting maturity and presumably begin again, proceeding in a quite different fashion. This would be enormously disruptive and is in the end impracticable.

Unfortunately, O5 neglects the fact that work done under one presupposition may have value under another, if a different interpretation is afforded to it. The multitude of astronomical observations carried out by ancient Greeks did not cease to have inquiry-relevant value when geocentrism was replaced by heliocentrism. Similarly, the questions by which we have been provoked and the answers we have defended under the Maturity Presupposition need not be discontinuous with what we go on to do in the absence of any maturity view if, moved by humility, we stop acting as though they are *all* the questions and as though our answers may not, in many cases, be stepping stones to better ideas.

Yet another idea, which hopes to be a better idea, puts the focus on responsibility:

O6. Each portion of deep time is plausibly seen as responsible (in respect of inquiry) only to itself, and so in ours we should operate as though it is the whole, thus accepting our present state as mature.

This thought admits of two fairly natural interpretations, one according to which a 'portion' of deep time is itself deep, tens or hundreds of thousands of years long, and another according to which one portion might be distinguished from another by the passing of just one or a few generations. On the first interpretation we might call our portion of time 'the human era' or some such, and on the second it might coincide with what in other contexts is called 'the Information Age' and distinguished from 'the Atomic Age' and 'the Machine Age' before it. Now the responsibility idea is most plausible if we go with the first interpretation. This can be seen in various ways, but consider only how much more swiftly we might have arrived at ideas that today can be seen as improvements on those of a few generations before if people living in that

earlier time had *not* treated their place in time as, on the second interpretation, is here recommended! So what about the first interpretation? Well, now the difficulty is that if we take our portion of time *thus* construed as the whole, then there will be room for increases of maturity beyond what we presently have achieved just as surely as if we suppose that inquiry will have a billion-year future. Deep time is deep time. And so, treating our portion of deep time as the whole, we would be required to accept *the most developed state achieved in it* as mature, allowing that it might not be our own. Hence, depending on which interpretation is selected, either the responsibility idea or acceptance of our present state as mature should appear unjustified.

I therefore move on to the next approach, which might be characterized as Promethean:

O7. From any location in time inquirers should 'go for it,' at least trying to get to the truth about things in their area of inquiry in the lifetime of their participation in inquiry, while assuming maturity for the species. The shape of inquiry should for them match the shape of their lives. Inevitably each new generation has the previous generations' work to build on, and one of these times we'll be successful if it is so much as possible for any inquiry to be successful – which means that the aim behind giving up maturity, if an inquiry-forwarding aim, can otherwise be achieved.

Full-fledged IH is actually compatible with quite a lot of this – so much so that it will be hard to say that it might properly be given up for the remainder. Try to get to the truth about things that concern one? Why not? One need not accept maturity to do so. One need not think of inquiry as sharing parameters with one's own life to do so. Indeed, for a Promethean inquirer, trying to get at the truth would presumably be the *more* attractive for being difficult and less than likely to succeed. Likewise we can have each generation (or century or millennium...) doing its best, passing the baton on, while allowing each also to be sensitive to ways in which the next may improve on its efforts or fill in gaps that inquirers in its own had better leave open, the better to pursue activities for which their capacities, as so far developed, appear better suited. By leaving such debates and focusing on issues that can more readily be moved forward in our own time, we will help to diminish the overall time and effort required for inquiry to succeed, as well as the probability that, given the hazards of life on Earth, it never does.

I conclude that there is no good reason to accept any of the would-be overriders I have identified.

IV.

The position that emerges unscathed from this discussion is therefore that we rationally should seek to avoid the failure of IH discussed in this paper. If what I have had to say about the Maturity Presupposition is even close to right, this means that it will be rationally incumbent on many of us to make important intellectual changes. And since all of human inquiry so far, certainly all of western philosophy and science over the past 2,500 years, bears the marks of – and may indeed, in its concerns and results, to a considerable extent be shaped by – our past acquiescence in ideas about human intellectual maturity and importance, who knows what the consequences may be for human inquiry. Fascinating new vistas open up before us provided only that we commit ourselves in an appropriately *thoroughgoing* manner to intellectual humility. 9

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