Notes on Knowledge and the Pursuit of Ideas

Those who do ask a question may be fools for five minutes, those who will not ask questions are fools forever **(China, trad.)**

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The pursuit of knowledge and ideas, if systematically and objectively engaged in, **will irrevocably change you, as an individual**, if you are thus prepared to open your mind to the world, and to new ideas and knowledge perspectives beyond mere human cultures and their preoccupations, as well as beyond yours, and others, personal or shared preconceptions. You will then become different, even alienated, from many of your immediate peers who are not so similarly inclined, and you will also outgrow your early teachers and mentors as time passes. So, you will then need to seek new peers and teachers, and even the most favourite of mentors will be subject to your more knowledgeable scrutiny. Your special interest fields will be further discerned, and that may include career choices as well. Your world will become larger, and yet smaller, but a new and more interesting perspective and world view will be acquired if you constantly question, probe, enquire, and both quantitatively and qualitatively assess all aspects of life, matter, and knowledge.

You may even be alienated from many, including family and contemporaries, while at the same time, if fortunate enough, you will gain more peers in your growing interest fields. Auto-didacticism is a difficult pursuit, and often slow and unbalanced in practice and in quality, so be active with **comparative** learning involving peers at any level, and irrespective of whether or not tertiary learning and experience are immediately possible. You will **never** learn all there is to know, but motivation maintained will ensure that your horizons of knowledge, practical or theoretical, will also never be limited, and that your mental faculties and talents will always be extended and tested. The more you will learn, the more that you will become aware of what you do not know; many never do face this inevitable knowledge conundrum, but the possession of true intellectual integrity demands that you must accept this most important reality. In addition, you must always be fearlessly and rigorously prepared to confront and revise your own motives and ideals as part of such a reality.

Always keep the good company, if or when possible, of those whose intellectual horizons transcend the merely petty, the immediately personal, or just the endlessly commonplace. The greatest minds, such as Einstein’s, always know the value of sharing and expanding ideas, using language to test, clarify, and shape these ideas, and cherishing the contact and stimulation of interested and engaged peers, without fear or favour. The most important part of any good advancing education is the tutorial system, of critiquing of ideas by peers, that likewise embraces this most useful and intellectually stimulating principle.

Identify and avoid those who apply principles of negative intellectual competition for doubtful vested interests, beyond just the fair assertion of intellectual property, attribution, or patent, often with recourse to spurious rules, philosophies, or creeds, determined on sequestering or suppressing ideas, seeing only that knowledge and ideas, or lack of them, are to be maintained merely as sources of personal or group power. Likewise, avoid the company of those who so pointlessly insist on learning the hard way. They are always 're-inventing the wheel' through mental laziness or attitudes of protracted ignorance, thus foregoing the rich harvest of human knowledge that has already been laid by for the benefit of all, or, even utilising the immediate insights and help of those close by, the ‘fresh eyes’ that would see a particular task differently, and so provide an easier and more expeditious means of undertaking its implementation.

Even more lamentable are those who would wilfully destroy knowledge and ideas out of sheer fear, superstition, and ignorance; only their ‘leaders’, if at all educable, should be fruitfully influenced to accept a wider view of real life. The greatest strengths of human intelligence are pattern recognition, and, pattern application, but sadly, these talents are too easily subverted to base means by those who cannot live with the fact that all of human knowledge, at any one time, will never be subsumed within one system of expeditious answers and explanations, thus suffering what could only be described as 'pattern anxiety', certainly a most disastrous personality trait when manifested by those in positions of responsibility or leadership. Indeed, wars and other dark human actions, including for the unscrupulous pursuit of vested interests, are often justified by enforcing this pattern anxiety upon others, individually, collectively, and culturally, and the continuing subsistence of such anti-intellectual ideas and motives still remain major obstacles to coherent human social and intellectual development.

Far better that you, as an individual, embrace with enthusiasm the plain fact the search for knowledge, ideas, and understanding is limitless, that your human brain, if used to its full potential, must deal with reconciling what is known with the sheer span of what is yet to be known, and that what you do know must constantly remain under review for all of your life, and this applies to all human beings who are at least capable of recognising these facts, and then acting constructively, rather than destructively, to meet and deal with the challenges that this recognition will always bring.

Be prepared to seek geographical relocation, if you must, to maintain your objective intellectual integrity and freedoms of speech and expression even if this means reviewing and revising personal and cultural ties. Just as an athlete would say, in the pursuit of their own particular endeavours, that there can be no real gain without some

real pain, so too, new levels of intellectual accomplishment must always be attempted, and new sources of knowledge interchange and experience must always be actively sought, even if at some immediate personal or material cost. Likewise, age will inevitably exact a toll, both mentally and physically, without due care and exercising of all faculties, so, 'use it or lose' it will always apply to extending the use of intellectual as well as physical capabilities.

Master the new technology of information processing, as well as the more traditional skills of knowledge acquisition, to aid with tackling the sheer bulk of data and sources increasingly available as this evermore pervasive information technology continues to grow. Also, continue to hone your skills of search and discernment as well as that of applied commonsense, so that your research is always rigorous, comparative, objective, and implemented with sensible economies of scale.

Be aware, too, that the pursuit of knowledge, ideas, and experience, by whatever means, will lead to the discovery of the bad as well as the good, and increased consciousness of new responsibilities of the burden of this knowledge, even to the extent of being a default conscience for the actions of others. But ask yourself, then, is the alternative, i.e., intellectual, worldly, and practical ignorance, really such bliss? Change and/or improve what you sensibly can, but, also accept that human intransigence, stupidity, and cupidity, will always continue to manifest, so conserve your best efforts for pursuing more optimal and fruitful outcomes. Also be aware that if you ever had the habit of using your **own** intelligence, then by not further acknowledging this intelligence it will never let you rest again, no matter how you would try to deny the impulse to learn, or even to be merely curious!

Life is also an ongoing intellectual and ideational journey for those who can face this prospect, others may, early on in this journey, quail at the prospective burden of endless understanding and enquiry, and settle for the intellectual limitations of immediate needs, or peer group norms and more easily attained social acceptance. For those who do continue this life's journey of enquiry, do try to use knowledge and ideas gained for universal good, however, and wherever, this may be defined at the time.

Remember always to maintain a sense of purpose and observation that includes details of everyday life, as well as grander visions and future interesting by-ways, and do not lose sight of the enjoyment of the richness and contentment that ordinary everyday life, so often enjoyable, can bring. In addition, should you wish to test your own understanding of whatever you have learned, and, how well you really **do** understand as opposed to merely 'knowing', you should then try to teach others. Such an exercise is a generational human duty, anyway, and never onerous if the knowledge is eagerly sought by those of whom you would gladly teach, whenever the need or opportunity arose.

A strong and heterogeneous culture of reasoning and enquiry is just as important for ongoing human destiny as the evolution of a larger brain, because without strong culture, that larger human brain quickly and dangerously begins to misuse intelligence, and the fruitful pursuit of knowledge and ideas is soon subverted to less creditable ends. Anarchy and atavism are always just below the surface of human affairs, the origin of our species, indeed. As we so often have found to our collective cost, culture can be dismantled in a generation if not strongly supported by open-minded reason and cultural and knowledge exchanges.

At more personal or community levels, intelligence and talents not nurtured by comparative educational opportunity and shared resources are not only sadly wasted, but, in turn, may nurture discontent, anomie, and active ill-will. Humans are easily lulled into credulousness, and when persuaded not to think will soon oblige, with all-too-predictable results. Closed minds then become uneducable minds, and expedient scapegoating soon undermines commonsense social responsibilities. Whither then the larger, sapient, brain?

So, always continue to pursue knowledge, to learn, and to actively resist intellectual stultification, whilst still accepting all the trials and triumphs that go with pursuing such endeavours! Your example, as well as your active involvement in these issues, will always be of greatest importance in human affairs, individually and collectively. Whole societies have fallen, and will continue to fall, when there is no 'intellectual wheel' to push against, when natural curiosity, native wit, and natural intelligence, are stunted and channelled into more banal and mundane pursuits other than those of ideas and knowledge. The greatest of cultures are also weakened by complacency, and devalue the pursuit of knowledge and ideas by replacing these with mere entertainment and spectacle, in the sadly mistaken belief that the material comfort and well-being of the moment signify some pinnacle of cultural achievement. Culture, as social cement, and paradigm for stability and sensible progress, then becomes dangerously debased and vulnerable to the worst of human motives and vested interests.

Note, too, that the future of intellectual capital also resides in your children, so foster this capital by good and early examples of inquiry, debate, self-expression, and healthy scepticism, as well as purely scholastic endeavours. Humans always have, and still must continue, to live by their wits, and always with regard to rising above their own atavistic nature and origin. We should increasingly have the added advantage of optimally accumulated and

consolidated knowledge, with organised and comparative education, plus commonsense use of hindsight and foresight, but only if that uniquely large brain also has optimal use. Most importantly, investing in this human intellectual and cultural capital really begins with responsibility of setting an example to the child at your knee, so that this investment will continue to include the young adult who will, in turn, purposefully and most willingly make time to continue to share your company and your table.

Finally, for those of us who were never born into the genius class, be assured that any brain used to its fullest potential or capabilities is more valuable to the world than a 'better' brain that is ill- or lazily-used, and any individual, genius or otherwise, with a well-utilised brain used primarily for original thinking, is also better company, both for themselves as well as for others, not least because of tending to have a more balanced and practical world view. As well, the very best of company, and in the best of all possible times, involves good friends with lively and balanced intellects, enjoying a leisurely meal, with accompanying libations, conversations, and debate, involving varied shared interests, either purely intellectual, or, more worldly in nature. May you often enjoy this most civilised state of affairs, and in turn, set a lasting personal example of optimal curiosity, and, considered intelligent debate, for yet another rising human generation!

(See also **Education in the Age of the Computer**)

10 Problems of Knowledge

1) Concerning human limitations and frailty; all possible knowledge will not fit in one small head, plus, age overtakes, and memory fails, thus, knowledge acquisition is an exercise that must be practiced from an early age, so that the mind is always ready, and, the brain is always optimally operational, regardless of age. Being born into a house full of useful books is an advantage. Healthy living definitely helps, and, that begins in the womb, given sensible parents, plus, fortuitously appropriate genes for both intelligence and longevity as well.

2) It is always necessary to deal with bad news as well as good, thus, the continual quest for comparative education and knowledge can, or should, only be optimally practiced by those best able to deal with this reality. Note that compartmentalised minds are seldom troubled by these considerations.

3) Acquisition of knowledge is not always easy, nor does it always confer pleasure or satisfaction, and, personal limitations of understanding should always be accommodated. Accordingly, that which must be learned is often not as enjoyable as that which is voluntarily and willingly learned. Also, there must always be a basic core of expedient knowledge maintained to support mundane and routine activities, plus, personal interactions, in everyday life. Inconvenient, certainly, nevertheless mostly necessary.

4) Ideally, knowledge should always be sought, gained, and utilized, without fear or favour. Naturally, caution and commonsense should be practiced in this regard, so, in given problematical circumstances, be sure to always survive to learn, inform, and/or teach, another day. Time and place are always important considerations. Note that stress diminution and/or stress avoidance are also part of healthy living and learning.

5) The more one knows, the more there is to know, and, a balanced mind is also necessary to deal with this reality. Knowledge is infinite, thus, the capacity for objectively processing facts must be matched by the ability to search constructively and comparatively, as well as accommodating potential need for the change and enlargement of a personal knowledge base. Scheduled rest periods, with some physical exercise, are advisable.

6) There is a difference between truth and fact, and, objective knowledge is ultimately the most valuable. All knowledge is relative as regards rating of usefulness and validity, and, self-knowledge should be included in this description. Thus, self-introspection should be regularly practiced, as well as maintaining the ongoing mental agility required for rigorous intellectual self-adjustment.

7) Not everyone is truly curious, not everyone can cope with changing reality, not everyone wants to share knowledge, so, beware wasting of time on unreasoned arguments, willful obfuscation, or, just countering pattern anxieties. Thus, careful choices of questions, as well as of intellectual company, including that of intellectual adversaries, are all strongly advised. Most people react more positively to questions if you appear less intellectually able than they are, and, will usually speak more slowly and clearly as a result.

8) If you really want to know the extent of your own knowledge and understanding of any topic, then, try teaching someone else. Teaching thus maintains personal understanding, and knowledge base, in an optimal condition. Problem-solving is a useful and necessary form of self-teaching, which combines both knowledge acquisition and application concurrently, and, should always be actively practiced. Note that advocating this type of mental exercise is never universally popular.

9) The brain is a biochemical entity, not a computer, so, to keep the mind fresh and flexible in the quest for knowledge, select and change learning topics as required. Intelligence is also wasted if not used optimally, plus, any brain used optimally is potentially more useful in the search for, and application of, useful knowledge than a better brain used lazily and/or badly. Thus, always seek out intellectually honest peers, or better, whenever practicable. Time and place are also important considerations.

10) Human affairs are ephemeral at best, and, the only knowledge that will still be relevant, beyond inevitable human demise, is that portion of human enquiry relating to the knowledge of the workings of the physical and natural worlds, and, of the Universe itself, which will still endlessly cycle on when all humans are gone. Note also that this is never a universally popular consideration.

NB, the term ‘mind’ herein is not used in any metaphysical sense, rather, that the brain, beyond autonomic mediation, is the active means to think, whereas the mind is then the actual process of doing so.

Use It or Lose it!

IQ aka 'Intelligence Quotient' as a viable measure of general intelligence has a varied and not always well-intentioned history, even having, at times, been subverted to serve vested interests. Indeed, 'intelligence' has been described as merely a measure of what has actually been tested for, and this is probably the most accurate rating.

However, there are some universal standards that can be invoked, based on current knowledge of neuro-anatomy and human thought processes, as well as comparison with the same phenomena in close relatives such as primates, and other animal species. There are boundaries beyond which human mind and its thought processes cannot extend, by development, anatomy, and/or performance, but within these boundaries, human IQ can still be effectively defined, delineated, and ranked. Indeed, there are different forms or talents that will differentiate one human mind form another, so, individually and culturally tailored IQ testing is necessary to measure, compare, and contrast some of these differences.

As far as IQ boundaries are concerned, the human brain is an electrochemical entity whose operation is based on, and within, physiological components and constraints, as well as overseeing many processes including the pursuit of ideas, as part of normal life, and, responding, on occasion, to IQ testing.

Humans can never be as single-minded as a computer, especially a stationary one, which actually means an added dimension to the development of AI and robots, because, if mobile, these entities will need to devote resources, as do humans, both physical and intellectual, to environmental coping, if not actual homeostasis. Sensory input has to be analysed and acted upon, digestion and digestion are supervised, consciously or unconsciously, hormones run their errands, and, ambient conditions as well as physical activity are also part of the homeostatic condition, for brain as well as corporeal self.

Also, human neural networks have infinite association capabilities, albeit with finite speeds, both being governed by physiology, albeit being influenced by age and state of health. Our silicon-based computers and robots, on the other hand, have infinite speed of processing, but, as yet, physical limits to connectivity, although neural networks for computers and robotics are being developed. Whether the present gaps between human and computer performance can be narrowed, in these respects, is still in the future.

Meanwhile, human management of intelligence has some guiding principles, both for self, and also, if bearing responsibility for overseeing the intellectual/IQ development of others. Latent abilities are an advantage, and easier to develop, but, general training in these principle characteristics of IQ will still be of benefit to any interested and motivated individual, or teacher. Therefore, IQ is dependant on these following factors, whether intrinsically strong as part of overall genetic endowment, or else, identified as being facets of individual development, and consequently being further trained and/or developed, thus:

1) Whatever IQ is present can always be further strengthened and developed, even if not to an infinite degree, especially by continually laying down and reinforcing neural pathways, ie, use it or lose it, and from an early age..

2) High degree and flexibility of neural connections, as characterises a 'quick' mind,

3) Single-mindedness and strength of intellectual purpose

4) Genetically speaking, if the potential is not there, then, there will be early limits to development. Genetics is the scaffold on which all else is built, or, neglected and misused.

5) Heredity will also determine the foundation of personality, regardless of environment, especially if there are pathological traits. Traits of active empathy and sympathy are desirable.

6) Passive learning, whether 'infotainment' or otherwise, will never be as successful as active learning, which is of major importance for early learning. Intelligence unused will be a source of personal discontent, especially if environment and cultural milieu change.

7) A learning work ethic is required to develop intelligence, given that seeking, processing, practise, and, the physiological growth of neural networks, are all involved, all important at any level of learning.

8) Awareness of the degree of what is unknown, as well as known, and intellectually reconciling and coping with this.

11) Non-compartmentalised and infinitely flexible mind,

12) High associative rate as well as pattern recognition and application rate,

13) Curious personality and good overall brain-work ethic,

14) Pattern recognition capacity, and capacity to remember and recall at will,

15) Memory, both short and long-term, and active learning and remembering abilities,

16) Lifelong health and good nutrition, thus influencing brain health, in utero, and beyond,

17) Recursive capabilities, as part of active an imagination

18) Capacity for objectiveness, and intellectual detachment, as required

19) All-round intelligence, or else, possessed of commonsense with positive trade-offs,

20) Balanced intelligence and personality, self awareness and self-judgement,

21) Capacity to organise thoughts, and thus productive activity as regards learning and problem-solving,

22) Knowing the difference between cunning and intelligence, understanding proper use and scope of applied intelligence, applying ratiocination rather than rationalisation,

23) Awareness of, and response to, intelligence in others, having an aesthetic sense of well-used and well-balanced intelligence, in self and in others

24) Heuristic abilities, applying those types of learning to solutions, related to mental work ethic,

25) Educable and/or trainable, depending on the circumstances, and, able to prioritise either imperative at will,

26) Application of reason, logic, planning, heuristics, and organisational talents, for directed problem-solving,

27) Powers of intellectual subconscious, or ‘incubative’ powers, in latent problem-solving,

28) Understanding the importance of a prepared mind, being observant and vigilant, and also, being able to command extensive abilities of pattern recognition and recall.

29) Balancing hindsight and foresight, what may happen, what really did happen, and, in turn, what could happen next.

30) Ability and motivation to develop special talents or skills, especially in relation to overcoming the deprivation of, or damage to, any sensory abilities, and/or other physical or mental limitations.

Needless to say, Artificial Intelligence will also develop these same talents and skills, perhaps more, given time…?