**Rationally-Unquestionable Education, Values and Knowledge.** (Version 2)

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**Abstract**

‘Rationality’ here only concerns knowledge, e.g., ways to acquire scientific knowledge.

Many factors are required for human rationality to exist and develop, e.g., life and evidence-based education. Rationality’s need for those factors, hence their value to rationality, is rationally-unquestionable.

Those factors require certain educational, moral, political, social, health-care etc values to be practised. This implies a pro-rationality education-theory and related values-theory, with one obligatory, general end – a uniquely rationally-unquestionable end.

That theory has deeply-humanly-meaningful, universal applications: the theory has implications for current and all possible educational, moral etc issues.

The theory’s sub-values prescribe much prescribed by some other theories, e.g., broad and deep knowledge-acquisition, critical thinking, non-sexism, non-racism, types of liberty, holistic flourishing, happiness, unselfishness and fairness. However, other theories lack pro-rationality theory’s maximum possible rational-unquestionability, internal coherence and coherence with rationality.

The theory encourages freedom in a-rationality areas, areas irrelevant to its obligatory end.

The theory inherently requires its advocates to be (self‑)critical, rationally viewing their human-suggested specifics as often fallible or unavoidably approximate. Similarly for students and educators.

**Keywords:** education, knowledge, science, cognitive, epistemology, ethics,rationality, justification, values, moral, meta-ethics, psychology, Hume.

**Section 1: Introduction**

(Some comments here are qualified later.)

Basically the paper concerns this: What could ‘justify an education (or value)’ coherently mean except to show that rationality conceivably regards it as uniquely unquestionable, and hence as rationally-justified as possible for an education (or value)? (Alternatives are shown to be somewhat incoherent and irrational. From any viewpoint, V, the pro-V is deemed unquestionably justified/correct. However, V may not be rational(ity).)

An introductory example of rationality-required sub-values:- When knowing 1+2=3 is rational, we at least implicitly know1+2=3 remains rational if stated by someone with a different sex/race: here we are rationally-necessarily non-sexist/non-racist.

This education needs to be practicable. The education advocated below is highly practicable, including via being motivating due to concerning all important human issues. With this, it often requires passionate engagement, truth-seeking, rationally-critical thinking, dedication, happiness, caring, fairness, liberality, creativity, flourishing and other positively motivating, emotion-involving factors.

Underlying any education is a theory. This paper’s education-theory is extremely broad. E.g., it involves educational values and content related to general moral, social, political etc issues and values, and vice versa. The theory has implications for all possible issues – and all human issues involve choices and hence values.

In this paper, the term ‘values’ concerns all evaluations: educational, moral, social, political, economic, health-care, environmental, legal, aesthetic, cognitive etc evaluations. And the term ‘rationality’ only concerns knowledge, e.g., the methods needed to reliably acquire knowledge, and hence the sufficiently-evidenced, hence rational-justification of knowledge. Notions such as ‘it is rational to be self-interested, or maximise profit, or avoid painful death’, are excluded. Thence, e.g., the theory excludes ‘it is rational for students to primarily acquire knowledge which is in their/society’s economic self-interest’. Knowledge is often acquired as the reliable cognitive means to help achieve a valued end, e.g., survival, wealth, health, happiness or power. No such or any end is rational – because only the cognitive means to reliably achieve an end is rational (and hence involves knowledge). (However, later it is argued that one educational, moral etc end can be known to be uniquely rationally-unquestionable, though not in itself rational or knowledge.)

This paper’s education-theory views rationality/knowledge and related values and social, political etc factors as central. As just suggested, the theory basically agrees with Hume (with qualifications mentioned below) that rationality is purely instrumental.[[1]](#footnote-1) It is the tool which seeks, acquires and cognitively involves what is for us knowledge.

In this paper, ‘knowledge’ only refers to the following areas and areas consistent with them: (knowing how to do) sound reasoning, correct mathematics, empirical observation and objective science[[2]](#footnote-2) – plus, as explained next, meta-knowledge concerning values or ends, and concerning knowledge/rationality.

Where possible, the theory requires students to know meta-knowledge such as outlined in (a)-(g) below. This is important regarding the theory’s view of knowledge/rationality and values, and regarding the theory’s inherent self-critical aspects:-

(a) Evidence is rational (factual). (Alternative definitions of ‘evidence’ are incoherent, as suggested later. Briefly, e.g., ‘faith as evidence’ and ‘my values as evidence’ allow contradictory faiths and values to be considered right or factual.)

Rationality involves using all the available evidence, which needs to be sufficient for an overall view sufficient to mean knowledge. The overall, rational view inherently involves coherence among all evidence. As shown often below, such coherence is rationality-required, and hence conceivably valued by rationality, meaning such coherence is a pro-rationality cognitive value.

(b) An overall, coherent view is important, as in the overall, sufficiently-evidenced view of the solar system disproving the insufficient, non-overall, Earth-based, Earth-centred view – a view incoherent with the overall view’s evidence/facts. (An overall view involving interrelated evidence and coherence will be shown to be crucial regarding rationally-justifying an education and values as far as possible.)

(c) Knowledge is often only probable, approximate or asymptotic, and sometimes situationally-variable. Evidence can be insufficient. There may be only apparently evidence or apparently sufficient evidence, as with the once common European non-overall view that all swans are white. Skepticism concerning our often-fallible attempts to be rational or knowledgeable can be rational.

(d) Meta-knowledge concerning knowledge also includes knowing about other general problems with rationality/knowledge. These include the induction problem, the criterion problem, Gettier problems, the unavoidable circularity due to our rationality/knowledge being unavoidably entirely within (somewhat-socialised) individual minds, and controversies concerning Kant’s related distinction between things-in-themselves outside our minds and the human rational-mind-interpretation of them which is for us all knowledge can be.

(e) The values-theories underlying education ultimately concern practices. Regarding our *practices*, regardless of problems as in (d), we necessarily assume rationality and knowledge exist. E.g., it is for you rationally-undeniable or knowledge that (in-practice) you are now reading this. Even persons denying (or doubting) that rationality/knowledge exist assume in practice that it is rational/knowledge that, e.g., to stay alive, they must, e.g., eat, drink and breathe only certain substances and avoid being hit by fast trucks. And in-practice they treat, e.g., what rational persons know are toilets, as toilets, not, e.g., as shoes, cars, food or as not real and not usable. In their practices, alive rationality-deniers/doubters and all alive persons have used survival-necessary and much other rationality/knowledge. Death by suicide also requires rationality/knowledge – regarding how (in-practice) to die.

(e)(i) In practice we naturally intend to be and are rational thousands of times hourly so that, instead of irrationality, i.e., mistakes, we can reliably successfully, e.g., acquire knowledge, teach, move, think, reason, speak, read, listen, avoid danger, find food and drink, find itches, clothes, toilets, doors, friends, pockets, buildings – and so on. And we need rationality to know a mistake is a mistake. So, at least implicitly, we conscious, practising persons necessarily naturally use and hence value rationality virtually permanently, and view doing so as rationally-unquestionable. (Later it is argued this is one of various notions useful regarding rationally-justifying an education-theory as far as possible.)

(f) So, regarding all reliable achievements (practices), rationality is achievement-necessary, a practical-necessity. If irrationality (a mistake) or chance somehow showed us something correct or useful in-practice, it is only our rationality which could know of the correctness or usefulness.

(g) The most important practical meta-knowledge, discussed next, shows that rationality requires various educational, moral, social, economic, health-care etc factors and related practised values – and shows that their hence rational-unquestionability implies a universally-applicable education- and values-theory.

Rationality’s product, (meta‑)knowledge, can be about those educational, social, economic, health-care and all other values, and hence every choice we make. Negative knowledge here, explained soon, shows that nearly all values are rationally-questionable. Positive knowledge here concerns the exception(s), namely one general, rationality-required value and hence the values thereunder – and the rationality-required factors they prescribe.

The rationality-required is pro-rationality. This paper mostly expands on the next paragraph:-

If a factor is necessary for and hence required by rationality, and hence crucially valuable regarding rationality’s very existence, then rationality cannot self-coherently question whether the factor is required or valuable here. Rationality is inherently coherent. So the factor and its being valuable here, plus the associated values-theory prescribing the factor, are rationally-unquestionable. Only the anti-rationality or irrational can question the factor, its being valuable here and the associated values-theory – and can only do so incorrectly. (Anti-rationality is exemplified shortly.)

First here:-

Some pro-rationality, rationality-required factors just exist, hence being unprescribable, e.g., astronomical, chemical and evolutionary factors which help(ed) make humanity and its rationality possible. Many factors can be prescribed. Specific prescriptions here come under the general value, ‘Be pro-rationality’, e.g., sub-values such as ‘Supply children’s material needs, e.g., food, or they will not live long enough to become increasingly rational’. (Non-supplying here is anti-rationality.) Those sub-values often have further, more specific values under them, e.g., prescribing which balances among which specific foods and other factors in situation S are optimal for maximising a specific child’s life-long rationality. (Clearly, (inherently rational) evidence is needed for such specifics/balances, which can only be approximate.)

Rationality-required factors often involve degrees and balances. An overall view needs to assess them. E.g., a diet optimal for developing a specific child’s rationality may be only a slight degree better here than certain other diets – diets requiring far less resources, saving resources overall more productive regarding society’s rationality increasing/developing.

Some factors are required for rationality to simply exist in a basic form, others for existing basic rationality to increase or develop, i.e., beyond basic rationality as in infants counting up to 3, into, e.g., sophisticated adult mathematics.

Some factors and associated values are instrumental. Others are internal to or fundamental aspects of our rationality.

Instrumental factors:-

Numerous factors are instrumentally necessary if one’s rationality is to exist and develop, e.g., whatever keeps one alive, e.g., food, care and safety. And newborns need the necessary cognitive potential. Later there needs to be no cognitively-disabling injury, disease, stress, depression or anxiety. Similarly, e.g., in late 20th Century Romanian orphanages, infants never given even minor mental stimulation suffered long-term reduced cognitive ability and hence reduced ability to be rational.[[3]](#footnote-3) A lack of physical affection, a lack of feeling loved by dependable carers, had a similar effect. These infants got their material needs, e.g., food and drink, but were typically left alone in cots. Some such infants died due to that emotional neglect. They lost a basic rationality-required factor: life. (Such neglect is anti-rationality.)

So pro-rationality factors include infant mental stimulation, love and physical affection, e.g., frequent cuddling involving feeling loved. These factors involve psychological effects with physiological (even fatal) effects. Harry Harlow’s (1959) work with infant primates further shows cuddling or perceived affection is important for primate mental and physical health and development.[[4]](#footnote-4) The emotions here, and others, will be further shown to be crucial rationality-required, pro-rationality factors.

Some conclusions so far:-

Pro-rationality factors which educators, parents etc can affect require practised pro-rationality values prescribing the factors. Practised values here become pro-rationality factors. Pro-rationality instrumental values involve an at least implicit ‘To help cause or maintain/increase rationality’ or similar prefix or suffix. The values include ‘Stimulate children mentally’, ‘Do not let children suffer or die due to emotional neglect’ and ‘Supply children’s material needs, e.g., food’. (Via evolution, children and caring for them are normally felt to be naturally intrinsically valuable. Feeling thus is extremely extrinsically (instrumentally) valuable regarding motivating pro-rationality parents, educators etc to practise pro-rationality values here. The general point here also applies elsewhere than to children, as suggested below.)

There are many pro-rationality factors instrumentally fundamental for, or presuppositions for, human rationality existing. They and the associated values are from rationality’s conceivable viewpoint at least indirectly as-far-as-possible rationally-justified because they are rationally-unquestionable, being instrumentally necessary for rationality’s very existence. Similarly, pro-rationality factors/values are unquestionable by rational educators and parents etc wishing to help children’s rationality exist. Related comments apply regarding rationality increasing/developing.

Instrumental factors and practised values, e.g., food and ‘The children are being fed’, are external to rationality-as-such. Next, values (and associated factors) internal to human rationality – values practised simultaneously with, and which are aspects of, our being rational. (Various recent comments apply here.)

These internal practised educational, cognitive, moral, social etc values are uniquely directly, non-instrumentally rationally-justified as far as possible for values. An introductory example follows. (Simplified points are expanded on later.):-

Suppose a sexist, racist and religious student, Chris, holds a certain view concerning evolution dearly, identifying strongly with it. A non-religious student, Sam, with a sex and race different to Chris’s, presents Chris with rational, scientific facts, i.e., evidence, disproving Chris’s view. Chris is rationality-required to cognitively value being rationally critical, including self-critical, namely value being skeptical and fallibilist where this helps achieve knowledge. To be rational, to be correct, Chris also needs to be pro-rationality via practising non-sexist, non-racist and non-egoistic values. Because evidence is rational, Chris needs to value the freedom of all to present evidence and to have evidence considered purely on its merits, and not rejected for subjective, non-evidence-based or irrational reasons, e.g., egoism, faith or the presenter’s sex/race.­ So, practised values promoting freedom to present evidence, and promoting freedom from sexism etc, are pro-rationality factors.

Even if Sam or anyone did not present such evidence to Chris at the time (due to Chris being alone then,) Chris is still rationality-required to have socially-relevant, non-egoistic, non-sexist etc values This is not only because Sam or others may sometime present Chris with such evidence. Also, e.g., solitary Chris may be irrational because of Chris’s egoistic, arrogantly sexist, religious etc values. So those non-egoistic, non-sexist etc values are always at least implicitly necessary for human rationality. E.g., again, when knowing 1+2=3 is rational, we at least implicitly know1+2=3 remains rational if stated by someone with a different sex/race: here we are rationally-necessarily non-sexist/non-racist.

As far as is possible for values, those non-sexist etc values are directly rationally-justified via being *internal* to or *necessary* *functional aspects* *of* rational science, of rationally-unquestionable education, and of our rationality generally – including regarding us as both social and rational beings. We practise them whenever we are rational. When we correctly evaluate a scientific (or mathematical etc) notion as rationally-justified, we at least implicitly correctly evaluate the required pro-rationality values necessarily involved as rationally-justified (as far as possible …). Being internal to or inherent in our rationality, they are intrinsic for/within rationality. and in a sense intrinsic values for/within rationality, and in that sense intrinsically justified for rationality (as far as is possible for values). With this, any intrinsic values for/within rationality are of intrinsic value to a rational mind. We can have or primarily be a rational mind. So such values are here intrinsically valuable to/for us. No other educational etc values can rationally (correctly) be described and justified in such ways (or to that degree).

That paragraph obviously applies to the cognitive values involved, values inextricably associated with those moral, social etc values.

Pro-rationality instrumental and internal-to-rationality values/factors involve emotions. E.g., to overrule emotions involved with egoism, faith and disliking a certain sex or race involves (soon-discussed) powerful pro-rationality emotion associated with the pro-rationality knowledge that egoism etc are rationally-unjustified. And feeling thatchildren are intrinsically valuable and lovable is another powerful pro-rationality emotional factor when it motivates pro-rationality child-care. (That feeling could also motivate, e.g., Nazis to care for Nazi children. This is not pro-rationality child-care, as suggested soon.)

Next, introductory comments concerning Sections 2-3’s further justificatory, complementary arguments, initially concerning coherence. (A-rationality, discussed later, is ignored here.):-

Pro-rationality factors/values cohere uniquely maximally with rationality: they have a supportive, causal or positive and sometimes intrinsic relation to/within rationality, i.e., a

pro- relation. All pro-rationality factors and values inherently cohere with each other. Any factor/value not cohering thus would be anti-rationality, i.e., incoherent with rationality via conflicting with rationality existing or developing, as with sexist irrationality and neglecting children’s need for love. It will soon increasingly be further shown (see (a)-(b) above) that coherence is crucial for rational-justification. It will be shown that every education-theory except one is at least somewhat internally incoherent and incoherent with rationality. Any incoherence means mistakes, i.e., irrationality, i.e., being rationally-unjustified. Students need to know that being incoherent is being wrong, as with believing the inconsistent 1+2=4, or that 1+1+1 or 3 is not 1+1+1 or 3, i.e., both 3 and not-3.

Of course, as well as consistency, coherence also requires positive, supportive or

pro- relationships. These will be further shown to fully exist, regarding a system involving practised educational etc values and, necessarily, rationality, only if the values are pro-rationality.

In a limited sense, other coherent systems exist. There can be coherence among false or irrational notions. However, they do not cohere maximally with rationality. Nazis had an in-part-coherent system using rationality but merely as a necessary means to help practise non-pro-rationality racist, sexist, murderous values. It will be shown that any mutually-coherent non-pro-rationality values cannot be coherent in that full way in relation to *rationality*. This is compounded by the fact that, as will be shown, *non*-pro-rationality values *require* much rationality, e.g., in order for them to be knowable and practised reliably. Similarly, any false or irrational notion, or any coherence, requires rationality if the coherence or notion can be even known to exist or thought of. So any coherence among false, irrational or rationally-unjustified values/notions is limited in that it only applies when their necessary involvement with rationality is ignored. Maximum overall possible coherence involves maximum coherence with the rationality necessarily involved.

Concluding the Introduction:-

The Chris and Romanian examples relate to A.P. Griffiths’s (1957-8) suggestion that the choosable conditions needed for rationality, namely certain practised values and factors, are necessarily uniquely immune from rational criticism. (This paper is partly a reinterpretation and development of his and other work.[[5]](#footnote-5))

This rational-unquestionability implies that, from rationality’s conceivable viewpoint, it would be obvious that pro-rationality is correct. (This is parallel to the fact that, from, e.g., a Nazi viewpoint (or any educational, moral etc viewpoint V), being pro-Nazi (or pro-V) is correct). With this, rationality cannot self-coherently view, and hence inherently cannot view, any other value as correct. So no other, non-pro-rationality value is rationally-unquestionable.

At the very least, unlike other values, pro-rationality values are uniquely close to or coherent with rationality, because coherence involves a supportive, *pro*- relationship. Or, as with the Chris example, cognitive and many other pro-rationality values are necessary aspects *of* human rationality: we cannot be rational without at least implicitly simultaneously practising those values. And they are coherent with instrumentally pro-rationality factors and the values prescribing them.

It will be further shown that the theory is highly practicable, including via being motivating and deeply humanly-meaningful. A dull, narrow or cerebral education and life is not pro-rationality-optimal. (It will be furthershown that, regarding humans and their practices, ‘Be pro-rationality’ solves problems involved with the too-narrow, cerebral, ‘Be rational’ and ‘Be knowledgeable’.) Passionate emotional engagement, happiness, love, freedom, flourishing, diversity and imagination are often needed – within the liberal, fair, caring, humanly-meaningful education, society and life further exemplified below. The Chris and Romanian examples imply that pro-rationality educational values/factors involve society, emotions and individuals' lives generally. It will be further shown that pro-rationality education-theory is universally applicable.

There is also the a-rationality, namely the irrelevant-to-pro-rationality and hence permissible according to pro-rationality theory. A-rationality is later shown to involve fairness and equality, great diversity, total freedom to do whatever you like here, and hence much happiness.

**Section 2: Further Regarding Rationality, Education, Values, Knowledge, Emotions and Coherence.**

‘Be rational’ is the appropriate general aim for rational computers in that rationality is their only possible, internal, general aim. That aim is inadequate for humans and hence for our education. (Explaining this leads to explaining why ‘Be knowledgeable’ is inadequate.):-

Very unlike rational computers, we are living, reproducing, consciously believing and choice-making beings with intentions involving various and varying values – and emotions. We hate, love, fear, desire, hope and so on. We have biological instincts, drives and needs, and parents, a nation, sexuality, race and gender, plus senses, inconsistencies, irrationality, sociability, socialisability, rewards/punishments, humor, health-concerns, variable will-power, gullibility, imagination and plans. And we are aware of death and our mortality, of time, causability, consequences and much else.

Important here is the need to make choices, especially regarding values and hence how to treat others regarding upbringing/education, (un)selfishness, power, freedoms, rights, fairness, responsibility, violence, caring, sexual behaviour and much else. For us choices/values are unavoidable because while conscious we must do something, i.e., practise, including just be still, rest or think. And conscious practices involve the at least implicit choice to do A rather than B or C etc. All choices involve values. Even if A is the choice to choose via chance, e.g., coin-tosses, this involves valuing chance-made decisions rather than having to decide among B and C etc.

Rational computers do not and cannot concern themselves with such things (except in that *we* can be concerned with such things and get computers to give us information regarding our concerns, as discussed soon).

Our differences from a purely rational being, or rationality-as-such, as in a computer, and the coherence crucial for rationality and rational-justification, require that regarding our educational etc *practices*, including thinking, speaking and choosing, the fundamental value/prescription for us cannot be ‘Be rational’. Various arguments below show why. A simplified example follows, introducing various notions explained further soon, and further showing that emotions are important for pro-rationality theory. The example also relates to Kant regarding whether one should lie, including to an intending murderer:-

Sally knows about a psychopathic, highly-irrational, irredeemable mass-murderer of children. He asks Sally where his next intended victims are, and Sally knows where. Here it would be pro*-rationality* to lie and hence be *irrational* in that lies are false. This lie would send the murderer where Sally hopes police can capture him. Sally does this, overruling her fear that he may escape and vengefully kill her. (His emotions are anti-rationality.) Sally teaches these children, and has evidence they are potentially more pro-rationality and rational than the murderer could ever be. Here Sally’s pro-rationality, via her chosen irrationality (lying), will as far as she could know mean probably more rationality long-term. (The previously-mentioned normal natural feeling that children are intrinsically-valuable is an associated extrinsically-valuable, instrumental pro-rationality factor for Sally here.)

If Sally’s aim was simply ‘Be rational’ as in ‘Always be truthful’, her aim would in-effect be anti-rationality, i.e., overall (e.g., over practices, time and persons) incoherent with the children’s probable future (pro‑)rationality. A truthful Sally would be only partly or incompletely coherent with rationality, namely coherent only from a limited, narrow, extremely-short-term (computer-like) viewpoint. Long-term, the children, if alive, would probably produce more rationality in the world than if murdered. Faced with the murderer, it is rational (correct) that irrationality via lying is the more pro-rationality alternative overall. Here, unlike a simply ‘Be rational’ (always truthful) computer, Sally can and does know and care about the children, and about their probable future – if alive. The fully rational human view is an overall view, which includes a long-term view and a concerning-all-relevant-possible-practices view. The rational view is also a realistic (objective) view, which includes knowing that one can only do what is possible. Regarding intending to be pro-rationality, it was only possible for Sally to make what was at the time probably the most pro-rationality choice as far as she could know.

Here the cognitive rational values discussed in the Chris example were applied at that overall, higher or meta- level involving a long-term-view, not just at the overviewed, simple ‘Be rational’, immediate, ‘Always be truthful’ lower level.

In sum:- For reasons such as those in the previous few paragraphs, humans and education need a general aim or value different from rationality-as-such as in computers’ very limited, simple ‘Be rational’. Humans need ‘Be pro-rational’ if they aim to be as rational and as coherent with rationality as possible long-term. Rationality would conceivably question or reject whatever means less rationality or the incoherent-with-rationality.

Here, again, human coherence with rationality and pro-rationality needs to involve emotions. These need knowledge: Sally’s unselfish caring here is an indirectly pro-rationality emotion associated with meta- or highest-level (overall-viewing) pro-rationality knowledge. Here that overall view includes knowledge regarding the children and murderer contexted by knowledge that being pro-rationality is rationally-unquestionable.

This meta-pro-rationality knowledge decides which emotions (and other educational, moral etc practices/factors) are situationally appropriate (as far as can be known). And, helped by the brain’s pre-frontal cortex and the frontal lobes’ connections with the brain’s emotional areas, this knowledge helps train (hard-wire) one’s brain to promote such emotions – e.g., Sally’s unselfish caring and ‘direct pro-rationality emotion’. Direct pro-rationality emotion, via those connections, is associated with meta-pro-rationality knowledge, becoming the emotion directly motivating human rationality to know what is (as far as one can know) most pro-rationality in a certain situation. This emotion then helps that training. (Rationally-unquestionable education would maximise the training/connections, e.g., via using the brain pruning, plasticity and hard-wiring prominent during adolescence discussed by Sisk, C.L. and Foster, D.L. (2004); and Giedd, J.N. et al (2004))

Instead of Sally’s motivation here, her rationality, being purely instrumental, could have been primarily motivated otherwise, e.g., by her fear of being vengefully murdered. Yet her meta-pro-rationality knowledge and associated coherent-therewith pro-rationality emotions, involving her will-power, ruled that they should rule. This involved over-ruling any competing, anti-rationality emotion, e.g., her fear here. (As exemplified later, some fears are pro-rationality.)

Pro-rationality values include valuing pro-rationality emotions/motivations. Emotions such as Sally’s dominant ones have an in-practice supportive, positive, pro- relation to rationality, crucially helping to maintain/develop it long-term. So pro-rationality emotions and anti-rationality emotions are crucially important issues for pro-rationality educational, moral etc values-theory. As explained further soon, conscious emotionally-desired aims, which are informed by knowledge (at least of what the aims are), (and often by mere beliefs,) are the only intended aims we can have. This paper involves the pro-rationality-knowledge-informed emotionally-desired aim of working towards a rationally-unquestionable education-theory. To continue doing that, more concerning emotion and rationality:-

Human rationality’s general end-aim is knowledge. Emotions, say greed, can direct rationality to acquire the specific knowledge needed to achieve aims or ends valued by the emotion, e.g., here, wealth or educational status. Such aims are external to those of our rationality-as-such. ‘Rationality-as-such’ means ‘rationality internally’. Rationality-as-such is as in a computer correctly doing sums, lacking emotion, unable to feel greed or value the wealth, status or anything a human using the computer feels/values and hence aims at via the sums. Again, rationality is purely instrumental. Similar to the evolution of muscles, our rationality exists due to humans having evolved to incorporate (emotionally-directable) rationality-as-such as a useful tool to help achieve, here via knowledge, the (naturally-normal emotionally-desired) survival (of one’s and/or one’s group’s genes). To reliably achieve that emotionally-desired (and other) end(s), only rationality can reliably show/give us the correct means. The correct cognitive means is knowledge. If chance or a mistake somehow showed us a correct means, it is only our rationality which could know the correctness and know how to correctly make use of the means. Ultimately, rationality and hence knowledge is needed, not ignorance or mistakes.

If rationality sought to be mistaken, i.e., irrational, it would contradict its internal, fundamental nature. This is impossible. Relatedly, humanity could not have survived via being always or mostly mistaken. (Later it is argued that rationality’s survival-necessity for us relates to one way to rationally-justify certain education etc values as far as possible.)

Importantly, being a very open capacity, rationality can be directed to achieve much else besides survival. It can be directed to know about values, though arguably these often relate at least indirectly to survival, e.g., via helping the group coherence without which its individual members, especially infants, cannot survive. Rationality can also be directed to acquire obviously non-survival-related knowledge, e.g., of all footballers’ names, and to-be-practised knowledge of how oneself or one’s group can suicide. Rationality-as-such is neutral regarding which knowledge to acquire. Emotions are inherently not neutral, as in desiring to survive, or to know correct values, or to know all footballers’ names, and as in suicidal depression.

Unless turned on, human rationality is only an inactive potential, like a turned-off computer or resting muscle. As Hume suggests, to do its work, human rationality needs to be turned on, i.e., motivated, via emotion. Rationality-as-such can be conceptually separated from emotion, and is physically separated as in a computer-operator’s emotions (and their aims) being physically external to the computer’s purely internal rational functioning. Both can obviously connect as a system involving the human operator’s emotions directing the computer to be turned on and achieve emotionally-desired aims. With human rationality-as-such, presumably something parallel happens within brains. (Something like Fodor’s (1983) notion of separate but connectable brain modules seems applicable here.) (Again, educators can help students to have their rationality directed and developed via pro-rational emotions, e.g., via educators directing adolescent students’ brain pruning, plasticity and hard-wiring thus.)

Student/human rationality can be motivated by various emotions, e.g., selfishness involving desiring an education aimed at knowing how to achieve a highly-valued personal end, e.g., wealth or status. Yet sometimes students/humans are simply curious, motivated just to know something, e.g., crossword or riddle answers, without any at-the-time intention and hence motivation to use the knowledge. Curiosity is often a powerful emotion/motivator. And, sometimes, with no conscious intention, we simply acquire knowledge, e.g., that a bird flew past. Here and with curiosity presumably there is an unconscious motivation to initially notice/know things somewhat in general, because some things affect our survival or may do. E.g., it is survival-helpful to notice where food, water, danger and shelter are. We need and intend to know much, in case it is useful. So rationality is a very open capacity. Rationally-unquestionable, pro-rationality education needs to direct that capacity. This involves directing curiosity.

Further here, regarding coherence:-

Rationality is so open or unrestricted it allows one to choose to acquire knowledge about anything knowable, from knowledge about a vast number of facts/areas, or just a very narrow area. The knowledge need not be pro-rationality knowledge, i.e., knowledge used to maintain/increase (pro‑)rationality. So ‘Be knowledgeable’ or simply ‘Acquire knowledge’ is a rationally-questionable educational/human value/aim. As in the Sally example, it is only a meta‑pro-rationality knowledge’s overviewing which understands that issue, via understanding arguments such as the following:-

Importantly, regarding human practices, coherence requires that being dedicatedly coherently pro-rationality cannot simply mean one must only be rational as such, and hence acquire simply *any* knowledge. Of course, no knowledge-as-such can be incoherent with or contradict rationality or any other knowledge. However, it is rationality/knowledge *related* *practices* which can be incoherent with rationality/knowledge – practices such as acquiring, storing, teaching and using knowledge, and other practices affecting rationality/knowledge. The latter practices include murdering Sally’s students and emotionally neglecting those Romanian orphans. The former include dedicatedly acquiring non-pro-rationality knowledge, e.g., learning all footballers’ names. This is incoherent with our acquiring and practising pro-rationality knowledge. The time, energy and other resources used could be used in pro-rationality ways. (Section 3 (and Farrand (2016)) discuss(es) numerous ways, e.g., promoting the education, care, safety, intellectual and political freedoms and the mental and physical health optimal for acquiring and practising pro-rationality knowledge.)

Acquiring etc knowledge and affecting rationality/knowledge are practices. It is practices which are the ultimate concern of values-theories. Regarding our knowledge-*related* *practices*, it is acquiring etc and practising pro-*rationality* knowledge, i.e., pro-knowledge knowledge, i.e., pro-rationality rationality, which is the only fully coherent, self-coherent end-aim for rationality. This is because here rationality produces more rationality/knowledge which produces more rationality/knowledge, and so on, over time. (0r, at least, rationality/knowledge is maintained over time.) This implies that education should only involve positively affecting rationality, which involves acquiring, storing, teaching and using only pro-rationality knowledge – with ‘using’ having universal implications, discussed in Section 3. (Students also may (not should) use rationality in a-rationality ways, suggested soon.)

Concluding/summarising recent discussions, and introducing further discussions:-

Knowledge is the product of rationality, but being pro-rationality does not simply mean teaching/acquiring knowledge merely for the sake of being rational or having knowledge as such. Anyway, it would be completely unclear (incoherent) regarding which knowledge to teach/acquire among the infinite possibilities. Those possibilities include counting every pebble and similar pointless or trivial overall in-effect anti-rationality knowledge. Knowledge-as-such is the product of rationality-as-such or the simple ‘Be rational’. Comments above concerning the latter two can be adapted to apply to knowledge-as-such or the simple ‘Be knowledgeable’ or ‘Acquire knowledge’.

Only a meta‑pro-rationality knowledge’s overviewing can see what uses of rationality/knowledge are fully or overall pro-rationality and hence overall coherent over time etc.

Recent paragraphs exemplified how rationality can be used in indirectly anti-rationality ways. Rationality can also be used in directly anti-rationality ways. This can involve non-trivial uses of non-trivial knowledge. E.g., Nazis used rationality to acquire advanced chemical, weapons etc knowledge used to destroy millions of at least potentially pro-rationality people and their rationality. Nazis were only *partly* or inconsistently pro-rationality, i.e., only to the necessary minimal, purely instrumental, limited degree (discussed further soon). Similarly regarding uncritically teaching/learning primarily what various present societies/governments want taught/learnt, e.g., knowledge and un-evidenced beliefs useful for, e.g., fascist, racist, sexist, religious, nationalist and/or socio-economic-classist societies/politicians.

So, like computers, human rationality-as-such need only be pro-rationality to that very limited, partial, instrumental degree. Here there is no acted-on, overall, meta‑pro-rationality view concerning practices, aims, emotions etc over time, persons etc, i.e., the view needed to be pro-rationality in an overall-coherent way. Being partly or inconsistently pro-rationality involves incoherences discussed above (and below). This is because the other part(s) involve(s) non-pro-rationality, or the inconsistency does (as shown further shortly).

Non-pro-rationality aims/values vary incoherently among and within persons and educational etc theories, and hence conflict. They are also incoherent with rationality via not being fully or only pro-rationality. Such pluralistic and other incoherence cannot be in rationality’s nature or rationally-justified.

Logically and hence rationally-justifiably, there can only be one right general, fundamental value. Plural fundamental right values would contradict each other, and the non-pro-rationality ones would contradict pro-rationality and hence the rationally-unquestionable – and hence question the rationally-unquestionable. The right cannot contradict the right or the rationally-unquestionable. That would be incoherent, irrational.

Coherence is rationality-required, and hence conceivably valued by rationality, meaning coherence is a pro-rationality cognitive value.

In sum, if something is incoherent or does not fit overall with(in) rationality, it cannot in any rational, meaningful, intelligible, non-delusional, coherent sense be considered right.

Next, (temporarily ignoring a-rationality,) arguments showing that other contradictions or incoherences occur with non-pro-rationality:-

Educators/persons accepting non-pro-rationality educational etc theories must use rationality as the cognitive means to achieve the survival needed to even have a theory, to know of their theory and its end(s), and to reliably achieve the other means to their end(s). Knowing is the product of our rationality. Non-pro-rationality theory-accepters must use rationality to know what each word, phrase etc in their thinking here is and means, and know how to think, write, say or read it. Otherwise they would not know what or how to think etc. All would be meaningless. Similarly regarding persons using rationality to reject pro-rationality theory, which all non-pro-rationality educational etc theory-accepters unavoidably do at least implicitly. They must at least use rationality to know what they are accepting, and this acceptance-knowledge implies what they reject. And they use rationality to implicitly or explicitly know how to accept/reject. Now, to use rationality is to at least implicitly choose to use it, i.e., to be pro-rationality here. Various points above show that along with rationality, being at least minimally pro*-*rationality is a survival-necessary means, indeed a universally reliable-achievement-necessary means. Theory-accepting and theory-rejecting are achievements. Therefore, non-pro-rationality theory-accepters are pro-rationality regarding means but not regarding their end(s). This is means-end incoherence, a type of self-contradiction or internal-incoherence. And this involves incoherence with rationality and with rationality’s inherent coherence: here theory-holders are only *partly* rational(ly-justified) or only partly coherent with rationality, only partly pro-rationality. Elsewhere they are anti-rationality: if one is not pro-rationality (or a-rationality), one is anti-rationality. There is no other option.

Means-end incoherence seems even more a major error when we further consider that pro-rationality is a *necessary,* *fundamental*, extremely common educational and general human value:-

Again, when we value being rational, which happens whenever we at least implicitly intend to be rational, or use rationality, we necessarily at least implicitly value being pro-rationality. That is, we value the factors/values making our rationality possible. As Section 1 (e)-(f) shows, we intend to be and are rational thousands of times hourly, to avoid being irrational, i.e., mistaken. When we are mistaken, ‘mistake’ means we intended to be rational (right), but unintentionally missed being right. And intentionally being wrong means using rationality to know how to be wrong. So, at least implicitly, we conscious, practising, here-rational-beings necessarily value being pro-rationality virtually permanently/universally, and do not question this. We view this as rationally-unquestionable.

That applies to using rationality to achieve whatever one’s highest-priority end is. (Plural highest-priority ends increase the incoherence discussed next.)

Valuing one’s highest-priority end is necessarily to at least implicitly value the means necessary to achieve the end. (Otherwise the end is not highest-priority.[[6]](#footnote-6)) Here the cognitive means is rationality. And when we are rational we at least implicitly necessarily value pro-rationality as the means to our rationality. That is, being pro-rationality is *fundamental* regarding intentionally reliably achieving one’s highest-priority end – or anything. Yet when we are rational and hence pro-rationality merely to achieve knowledge to achieve a valued non-pro-rationality end, we contradict that for-us necessary, pro-rationality fundamental value. We contradict part of ourselves, being hence self-incoherent, internally-incoherent, incoherent with (our) rationality. Here we are necessarily wrong.

In sum:- ‘Be pro-rationality’ is uniquely inherently rationally-justified as a means, so no other means is. And ‘Be pro-rationality’ is also as far as possible rationally-justified as an end, and uniquely so. This proves there is only one way to be fully coherent and hence as right as possible – by choosing pro-rationality as one’s educational, moral etc highest-priority end, rationality as the cognitive means to that end, pro-rational emotions as the motivational means thereto, and so on. This is the only way to be coherent with what for us is a fundamentally-necessary value. Coherence with the necessary also seems right as in being parallel to us cohering (agreeing) with the logically-necessary 1+2=3 or 1+1+1 is 1+1+1.

Recent discussion relates to a former point concerning coherence and values-theories: with all values-theories except pro-rationality theory, one part of a theory at least implicitly claims that its at least implicit value/standard is right and another part’s is wrong, and vice versa. So the theory in effect claims it is both right and wrong. Such coherence is further exemplified next:-

Comments concerning means-end incoherence apply relatedly to ‘form-content’ incoherence. Consider a valid reasoning form, e.g., ‘All Ps are Qs; R is a P; therefore R is a Q’. Suppose one uses that form to advocate a non-pro-rationality value. (E.g., ‘Everything that causes happiness is morally right. My (non-pro-rationality) political party makes me happy. Therefore my party is morally right.’) Here one’s form of thinking is rational, hence involving one being pro-rationality here. Yet this is incoherent with that valid form’s *content*, namely non-pro-rationality. All non-pro-rationality values-theories’ formally-valid arguments are incoherent here. Their formally-invalid arguments are obviously also wrong.

Further regarding coherence:-

The general rational requirement for coherence also applies regarding *believing* educational, moral etc theories. ‘I believe theory X’ means ‘I believe X is true’*.* The ‘is true’ aspect of believing is unavoidable. (One reason for that is: ‘I believe X is false (or may be)’ is equivalent to ‘I believe it is *true* that X is false (or may be)’.)

To believe X is to believe X is rational, i.e., true (as in ‘1+2=3 is rational, i.e., true’). With this, to believe X is to at least implicitly be pro-truth or pro-the-truth-of-X and to assume oneself is rational in that it is rational to believe what is true – and because it is rationality which discovers or recognises truth. This all assumes one is pro-rationality here, or pro-one’s-rationality via one believing X (is true). Anyone believing a non-pro-rationality education-theory is unavoidably pro-truth here and hence pro-rationality. This contradicts their theory not being pro-rationality overall. Their theory’s end(s), not being pro-rationality, must be anti-rationality, as explained above. Here too their mind or its theory is self-contradictory, irrational, as with other recently-discussed incoherence. And, as recent points suggest, those believers’ internal incoherence means their anti-rationality end(s) imply, irrationally or incorrectly, that pro-rationality and hence rationality are wrong. (This implication implies it is wrong to believe X (or anything) is true, including that implication etc.) Such incoherence is rationally-unquestionably a cognitively, educationally and values-theoretical fundamental error. How could rationality or the rational, the right, be wrong, i.e., irrational? How could the rational and relatedly the pro-being-rational, i.e., the pro-rationality, be irrational or incorrect?

Concluding Sections 1 and 2:-

Regarding recent and other points, a central issue is rationality’s uniquely *overall*, coherence-investigating view. As with the above-mentioned overall view showing that Earth orbits the sun, not vice versa, rationality is that which oversees all the available needed evidence – in all applicable areas. This includes the values area. Only critical rationality’s overall view sees the incoherence and hence irrationality and hence unintelligibility in all value-theories except inherently coherent pro-rationality theory. Via lacking that overall critical view, theories or theorists not seeing that incoherence are not as rational as possible. Such theories only seem intelligible or correct via a partial view of the theory – as with the partial, Earth-bound view making it seem correct that the sun orbits Earth.

In sum, critical rationality’s disproving of all value-theories historically or presently (2022) believed does not mean we are left with no correct reason to do this rather than that, e.g., live rather than die, care for children rather than selfishly neglect them, and so on. The method via which critical rationality does such disproving is the method involving or implying correct, coherent reasons to do this rather than that. It alone as far as possible correctly answers ‘How should one live?’ – via its inherent hence rationally-unquestionable values-theory. Here alone, rationality finds a coherent values-theory.

With practised pro-rationality knowledge/rationality, along with other factors rationality is a means to increase/maintain rationality overall as an end, e.g., long-term. Here means and end mutually support each other, i.e., are coherent over time. Here rationality is used in pro-rationality ways. Coherence is rationality-required. Pro*-*rationality rationality is obviously coherent. It coheres perfectly with (supports and causes more) (pro‑)rationality (and so on), or at least maintains (pro‑)rationality. Because practised pro-rationality rationality means this unique coherence with rationality, it is hence uniquely rationally-unquestionable. It would conceivably be uniquely valued and advocated by rationality. This is also because rationality inherently seeks knowledge and is hence pro-knowledge – and being pro-knowledge means being pro-rationality.

As explained before those recent discussions of coherence, the coherence uniquely involved with pro-rationality values is evidence for them being rationally-justified (as far as possible …). Many other points above are further evidence. Also, the related fact that only rationality concerns evidence has important implications concerning educational etc values. Rationality’s inherent involvement with evidence includes acquiring, storing and using the evidence. In a sense this is another way in which pro-rationality education-theory is uniquely maximally evidence-based. Relatedly, pro-rationality theory is also uniquely inherently and self-coherently rationality-based and knowledge-based. No other education-theory can rationally make those claims, because the others are based primarily on other notions/aims, and are only partly coherent.

The combination of all such evidence for pro-rationality theory implies that rationality would conceivably regard pro-rationality education and values as uniquely unquestionable, i.e., as correct and hence as rationally-justified as possible for education and values. What could ‘justify an education and values’ coherently and intelligibly mean except to show that rationality would regard them thus?

Relatedly, as the Chris example showed, various practised pro-rationality values are inherent, internal, essential, functional aspects *of* rationality – and this also suggests those values are rationally-unquestionable and as rationally-justified as possible for values. It also suggests that, from rationality’s viewpoint, in a sense pro-rationality is self-evidently correct or justified due to various pro-rationality values being inherent aspects *of* rationality it*self* and hence of rational-justification. Rationality would conceivably rationally (correctly) view aspects of itself as self-evidently correct. Similarly regarding the other practised pro-rationality values being instrumentally necessary *for* rationality and rational-justification (and for these increasing).

Similarly regarding the only knowledge and practices rationality could self-coherently view as overall of value to it*self* – pro-rationality knowledge and practices. It is conceivably evident to rationality that they are *self*-evidently correct. With this, Section 1 showed that various pro-rationality values are necessarily intrinsic within/for oneself as a rational being, and relatedly intrinsically-valuable to/for rational minds.

It is only a rational, overall view which knows such things.

**Section 3: Other Representative Practical Applications, and A-Rationality**

Pro-rationality educational-theory concerns all our intended practices and our whole lives, because the theory is fundamentally rational – and the rational applies universally. With this, it is logically (rationally) necessary that, as with any end (or thing), all else is either positive, negative or neutral in relation to it. The end prescribes the positive, forbids the negative, and permits anything neutral. So pro-rationality education has universal practical applications. It rationally investigates which practices affect rationality and which do not, and promotes those with positive effects, opposes the negative, and liberally permits all that does not affect rationality, namely the a-rationality.

This paper will further show that rationality is affected by a vast range of educational, emotional, social, health-care, political, economic, environmental and other factors.[[7]](#footnote-7) First, emotions need more discussion. This will clearly further exemplify the deep human-meaningfulness of this education-theory:-

Various emotions (motivations) in certain situations are pro-rationality. Direct pro-rationality motivation is our curiosity instinct or drive, associated with meta-pro-rationality knowledge, thence driven to acquire only pro-rationality knowledge (except that this meta-knowledge includes knowing that acquiring a-rationality knowledge is permissible). This informed emotion needs to be the educationally fundamental motivation regarding learning. Again, via natural selection we are often naturally powerfully driven (motivated) to be curious, and this means curious about the truth, i.e., we are driven to acquire knowledge. This needs rationality. In sum, students can be naturally normally emotionally keen (driven) to seek pro-rationality knowledge.

This natural motivation, combined with that meta-pro-rationality knowledge, would rule (out) competing motivations/emotions, as with Sally. That combination would also rule that other emotions are needed to help that normal emotional drive. These are indirectly pro-rationality, e.g., a compassionate desire to help make the world a rationally-unquestionably better place, and sympathy for children and others lacking pro-rationality resources, as in those Romanian orphanages, and in many societies and schools world-wide.

Various emotional factors are needed so students’ curiosity can optimally acquire pro-rationality knowledge. E.g., because depression can be so disabling that one lacks curiosity and is often not rational, whatever helps avoid that is needed. Happiness or less unhappiness is a general need here. Happiness-promoting factors here could include types of teaching, exercise, humor, love, friendships, pets, music, meditation, diet, nature, sunshine, sex, medication and family psychotherapy. Schools should help in all such areas, at least indirectly, as part of a holistic education. Those factors mean practising associated pro-rationality sub-values, say ‘Graham’s school should facilitate him exercising with friends in fun ways in nature (to help maximise his pro-rationality), and help his family and health-carers to help him here’. Various subjective experiences which schools can promote, including certain artistic experiences, could be important happiness-increasing factors.

Happiness is a factor potentially helpful for improving many other pro-rationality factors, including the general motivation and ability to practise pro-rationality knowledge. (Happiness-as-such is not a pro-rationality aim.) The pro-rationality-optimal on-average degree of student happiness seems flexibly somewhere well between suffering so disabling that rationality is impossible, and medium-to-long-term drug-induced or other extreme bliss meaning ignorance and/or lack of pro-rationality motivation and focus.[[8]](#footnote-8) However, such issues are complex and somewhat uncertain. E.g., being (non-disablingly) unhappy can motivate searching for pro-rationality knowledge, e.g., unhappiness regarding diseases which disaffect pro-rationality can motivate students to search for cures. Along with such unhappiness there is arguably a type of happiness due to self-respect via knowing oneself is at least doing one’s best or intends to. And there is potentially more pro-rationality happiness overall, long-term, via acquiring the knowledge, e.g., cures for brain cancers.

For those potentially highly pro-rationality beings, young children, pro-rationality physical and mental health involves many emotions in the children and their educators, parents and other scarers. Children need to be normally at least moderately happy here. This requires humor, other fun, non-abusive, sympathetic, secure, altruistic caring and love, including physical affection, all of which a holistic education can promote, including out of school. As exemplified by Section 1’s discussion of Romanian orphanages, to not get such factors seriously disaffects emotional, cognitive and other brain development. This disaffects children’s pro-rationality potential permanently.

Educators and other adults often have emotional needs similar to children’s, and need other factors involving emotions, e.g., avoiding a frustrating, mentally-consuming lack of fulfilling sex, and avoiding mentally-disabling workplace stress. Similarly, pro-rationality physical health and safety are needed to help educators be in the emotional state needed to optimally teach pro-rationality. Achieving such health and safety may require pro-rationality (non-disabling) fear – of illness, danger and of inability to be such educators. And so on. Similarly for parents and other carers.

In sum, pro-rationality factors often crucially include emotions. Other examples of pro-rationality emotions are those involved in the resilience, will-power, rationally-confident open-mindedness, non-egoism, non-sexism, non-racism, friendliness and sometimes humor needed for the rational positive pro-rationality criticism of oneself and others often needed in education and life generally.

More examples of the theory’s practical applicability, not primarily focusing on emotion:-

For students, teachers and others to value and have pro-rationality mental and physical ability requires valuing and having, e.g., individualised diets and health-care, and hence a certain society, environment, agriculture and economy. These require clean water and air, avoiding temperature extremes, avoiding crop-diseases and so on. Such factors require many political, child-raising, housing, sewerage, transport, employment, emotional and other factors – and, crucially, education concerning those and other pro-rationality factors. (Their combination requires a complex situationally-flexible balance, the precise nature of which students should know can only be approximately known. That sentence obviously applies elsewhere too.)

Pro-rationality theory also concerns a-rationality. This has important practical implications for that education, society etc. Students need to know it is rational(ly-justified) and hence pro-rationality to accept that much in life is a-rationality. Anything a-rationality does not affect anyone’s pro-rationality. Here it does not matter whether oneself is or does any of various alternatives in numerous areas. So total freedom in schools and elsewhere in society is appropriate here. This means much individuality.

As the Chris example shows, it is pro-rationality (and hence rationally-unquestionable) to treat the sex and race of someone being rational as irrelevant, i.e., a-rationality. In some other situations persons’ sex can be relevant, e.g., regarding producing the future generations without which (pro‑)rationality would die out. This is separate from sex*ism*. Students need to know that in the Chris (and all) situation(s), to be sexist would be a mistake and means mistakes. If, e.g., someone knows and writes 1+2=3, this sum obviously remains rational regardless of whether a male or female or other knows and writes it. (This is basically like the pen’s color with which one writes 1+2=3 being irrelevant to that sum’s rationality.) So it is of pro-rationality value to treat the a-rationality, here persons’ sex, as irrelevant, and hence as neither right nor wrong. Students should see it is obviously a mistake or irrational, and anti-rationality, if one views 1+2=3 as wrong if stated by anyone with a sex one views as wrong/inferior. Further, from a pro-rationality, rationally-unquestionable viewpoint, an inherently universalising viewpoint, in *any* situation it is wrong to treat anyone’s sex as such as inherently wrong, or right. The same applies to sexuality, as long as there are no anti-rationality effects (e.g., via rape and paedophilia), and that future-generation-need is fulfilled. It can be fulfilled along with non-heterosexuality.

And so on, for race and much else. It needs to be made clear to students that everyone has the rationally-justified right to be free from rationally-unjustified discrimination.

So, regarding a-rationality aspects a student or person unchoosably has, say being born an Asian female, there needs to be freedom from racism and sexism. And so on. Regarding choosable a-rationality, many freedoms are appropriate, say regarding choosing among non-core school subjects. Similarly regarding certain family-types and appearance-types. Here, say, parents or educators choosing to live in communal families, and students who like unusual hair-styles, should be treated the same as others differing here, all else pro-rationality-relevant equal. Here there is no effect on (pro‑)rationality whether one is or does this or that a-rationality thing. Freedom here is rationally-unquestionable.

So, along with prescribing just one end, pro-rationality theory permits whatever choices have a neutral (zero) causal relation to that obligatory, primary end. This means numerous a-rationality, secondary ends, irrelevant (orthogonal) to the primary end. These are liberally permitted, not prescribed.

Some such ends will conflict, but only need do so “in theory” or “on-paper”, not in-practice. Again, values-theories ultimately concern practices. A simplified example:- Pro-rationality person P1 wants to go to restaurant R1 tonight, and pro-rationality P2 wants R2, and it is pro-rationality-happiness-producing for them to peacefully go together. The choice between these restaurants is a-rationality. In *practice*, pro-rationality persons inherently do not personally conflict, because that would be anti-rationality. E.g., conflict may make them less rational, less pro-rationality-happy, and would use mental, time, energy etc resources which could have been used in pro-rationality ways. Pro-rationality P1 and P2 could choose via coin-tossing, or agree to go to R1 tonight and R2 another night. Pro-rationality persons would be unselfish, and hence wish to please others, be fair, choose via chance or take turns, reciprocate, compromise and so on. So such on-paper-conflicting options need not mean conflict in practice. Each a-rationality option would in-practice be viewed and treated by pro-rationality, rational persons as rationally neither right nor wrong. Anti-rationality persons would irrationally regard their choice as right, which is wrong.

Importantly, whether something is a-rationality can vary situationally, including across time, persons etc. The same applies regarding the pro-rationality. E.g., suppose for Jim it is pro-rationality to include certain nuts in his diet, and it is a-rationality (irrelevant) whether they are type 1 or 2. Jane is allergic to nuts. Eating them would severely disaffect her capacity to be rational and pro-rationality. She may die. For Jane there are no pro-rationality nuts or a-rationality nut choices, only anti-rationality nuts. Due to such situational relativity, evidence is needed regarding whether something is either a- or pro- or anti-rationality in a specific situation. Such evidence is rationality usable as a means to increase or maintain pro-rationality and hence rationality.

Finally here, a-rationality freedoms (and related rights) are not a purely a-rationality issue. They are also indirectly pro-rationality in that it is pro-rationality and rational to regard and treat the a-rationality as a-rationality – as rationally (truly) neither right nor wrong, as neither rationally-justified nor rationally-unjustified.

There are also numerous directly pro-rationality freedoms (and related rights), i.e., those not focusing on anything a-rationality. E.g., to have rationally-unquestionable, pro-rationality free speech requires various educational, political, social and legal freedoms. E.g., students need the freedom (and right) to seek evidence and have their evidence-based, rational, pro-rationality statements seriously considered by others. Our statements here should not be ignored, ridiculed or censored if others disagree with our statements as such. (This paragraph can be adapted to apply to sometimes-fallible speculative hypothesising when seeking pro-rationality knowledge, i.e., to the imaginative freedom, diversity and creativity often needed to hypothesise productively here.)

Students need to know that freedom to state non-evidence-based, irrational statements with anti-rationality effects, e.g., race-hate statements, is ruled out by pro-rationality theory. This ruling-out means freedom from such anti-rationality and from associated unhappiness, conflict and so on.

Such a-rationality and pro-rationality freedoms from racist, sexist etc discrimination, from (often-anti-rationality) free speech as such, from irrational censorship, and so on, would help motivate the freed potentially/actually pro-rational persons to (further) accept the theory rationally-justifying the freedoms (as far as possible…).

Various points above imply that all such freedoms (and related rights) apply universally among persons. This means considering all persons. Generalising this pro-rationality requirement requires types of world-wide fairness. E.g., pro-rationality theory forbids rich persons/nations paying for their children to have education or health-care that poor persons/nations cannot afford. This fairness and related sympathetic altruism (plus various other points) means a unique type of democratic socialism here. This would enable all to pro-rationality-flourish as far as possible consistent with maximising society’s overall pro-rationality. This peaceful world-society would involve all unselfishly sharing resources and caring for society’s members in ways meaning all can be as pro-rationality as possible overall.

Further regarding persons/society and fairness:- It is rational (correct) or knowledge that individual and other situational differences exist. So, e.g., the rational, pro-rationality-fair view here recognises that for some persons pro-rationality practices often need to be largely non-intellectual. E.g., that view accepts that some persons cannot manage anything more difficult than cleaning parks and streets – and this unavoidability means they cannot rationally be viewed as responsible for their capacities and as morally faulty/inferior. Anyway, clean parks and streets are needed for everyone’s pro-rationality health, safety and aesthetic experiences. Not every student needs to become a pro-rationality engineer, philosopher, scientist or similar.

The pro-rationality overall view realises that various pro-rationality balances among and within persons and vocations are needed. What is required regarding education and knowledge is that society overall has the at-the-time greatest achievable balanced quantity and quality of pro-rationality knowledge – used to educate and otherwise help society generally regarding being pro-rationality.

Here, if students or persons are as pro-rationality as individually-maximally possible, inherently realistic (rational) pro-rationality theory accepts all as rationally-unquestionably of equal maximum moral value. (E.g., this includes infants, who cannot possibly be highly rational and pro-rationality.)

Relatedly, the theory does not expect extreme long-term effort by students/researchers to acquire knowledge. Too much time and effort trying to acquire pro-rationality knowledge means too little practising of other pro-rationality knowledge. This is a lack of rationality-required balance. In-effect this is anti-rationality. Here students/researchers would study so hard it would be impossible to have the leisure, fun, happiness, exercise, health, sex, love, personal relationships, rest and hence cognitive ability they need to pro-rationality-optimally acquire pro-rationality knowledge and be individually-maximally pro-rationality overall. Such balance, rest, leisure etc are pro-rationality practices/factors.

**Section 4: Concluding Comments**

(Sections 1-2’s concluding comments are relevant here.)

Rationality-required factors imply a universally-applicable education-theory and moral etc values-theory with one general obligatory end and many sub-values thereunder.

If a factor is required by rationality, and hence valuable regarding rationality’s very existence, rationality cannot self-coherently question whether the factor is required or valuable here. Rationality is inherently coherent. So a prescribable factor and its being valuable here, plus the associated value prescribing the factor, are rationally-unquestionable. Only the anti-rationality or irrational can (incorrectly) question the factor, its being valuable here, and the value prescribing it. Practised values here are rationality-required, pro-rationality factors.

(Similar comments apply regarding pro-rationality factors which help existing rationality increase or develop.)

Without rationality, and hence pro-rationality factors, humans could not reliably survive. Pro-rationality factors/values were also shown to concern everything else normal humans find naturally important and deeply meaningful, e.g., love, pleasure, various other emotions, fairness, and raising happy, healthy children – and truth or knowledge. (Various qualifications are needed here of course.)

For such reasons pro-rationality education is highly practicable, including via being naturally highly motivating. A dull, narrow or cerebral education and life is not pro-rationality-optimal. Passionate emotional engagement, much freedom, enjoyment, dedication, flourishing, diversity and creativity are often needed. And in a-rationality areas total freedom is appropriate, adding to the liberty and happiness involved in being pro-rationality.

Various pro-rationality values, e.g., non-sexism and non-racism, and education involving them, were shown to be necessary for or functional aspects of scientific (and all other) rationality. This, plus other points in Sections 1-3, provides sufficient evidence for pro-rationality education-theory being uniquely rationally-unquestionable. Such points were shown to be the only possible evidence, the only available evidence, for an education-theory. This paper shows that all education-theories except pro-rationality theory are at least somewhat internally-incoherent and incoherent with rationality, hence not rationally-justifiable. So they cannot be correct. Some other theories’ values, e.g., holistic flourishing, non-racism and non-sexism, come under ‘Be pro-rationality’, but those other theories lack the evidence pro-rationality theory has for its sub-values.

Pro-rationality education-theory’s values inherently include prescribing a rationally-critical approach. This has implications for students, educators and all others, and includes the theory requiring its advocates to be self-critical, rationally viewing their human-suggested specifics as often fallible or unavoidably approximate. Yet via increasing knowledge here we can increasingly have a theory on-average clear enough to be a practicable work-in-progress.

**Appendix: Pro-rationality and the Is-Ought Issue**

This paper suggests a unique, as-sound-as-possible argument going from factual premises to conclusions concerning values. This suggests an as-far-as-possible solution to the is-ought or fact-value problem:-

(Each sentence in this argument can be correctly preceded by ‘It is a fact that’.)

There are rationality-required factors, factors necessary for human rationality. (These are an ‘is’.)

Practised values are required to achieve the prescribable factors. (These values are an ‘ought’.)

Those practised values are hence rationality-required (factors). (This means a rationality-required, rationally-unquestionable inextricable connection between that ‘is’ and that ‘ought’.)

Some practised values, e.g., non-sexism and non-racism, were shown to be at least implicitly necessary during rational thought. Others are necessary before rationality can exist.

All those values/factors are conceivably viewable by rationality as rationally-unquestionable.

With this, they are required for rational-justification, i.e., for the (as-far-as-possible) known-correct to exist (cognitively).

Therefore those values are aspects *of* rational-justification, *of* our knowing-the-correct.

That all means those values are as rationally-justified and hence as right as is possible for values. (Other values cannot rationally claim that.)

A value which is right (as possible) is by definition one we ought to practise. (There is no other rationally-unquestionable definition and alternative.)

Being necessary *for* or inherent aspects *of* rationality, certain practised values are from rationality’s conceivable viewpoint an ‘is’, not just an ‘ought’.

(Related points apply to practised values/factors helpful regarding increasing our rationality.)

To question those conclusions is to in-effect ask: ‘Is the right thing to do the right thing to do?’ (This is equivalent to ‘Is X X?’, ‘Is three three?’ and ‘Is something what it is?’.) The question implicitly assumes the answer is yes, i.e., that there is a right thing to do, which is the right thing to do.

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1. “Reason is …the slave of the passions” (Hume, D. “*Treatise*” III, 1.1) [↑](#footnote-ref-1)
2. # Couvalis, G (2012) gives good explanations of much of what this paper means by rationality and knowledge.

   [↑](#footnote-ref-2)
3. Reported in apa.org/monitor (2014/06). Further analysis is in

   [Wolfe and Hildyard, (2002), and Nelson and Zeanah (2014)](https://www.livescience.com › Health )  [↑](#footnote-ref-3)
4. [Harlow, Harry (June 1959](https://pages.uoregon.edu/adoption/archive/HarlowLIM.htm)). Those infants normally preferred a cuddly non-food-providing mother-substitute to a non-cuddly food-providing mother-substitute. [↑](#footnote-ref-4)
5. The other work is Farrand (2016) [↑](#footnote-ref-5)
6. E.g., suppose violence is a necessary means to valued end E, a means one considers unjustified and refuses to implement. Here one values non-violence as an end and views it as of more value than end E, and hence as a higher priority than E. [↑](#footnote-ref-6)
7. For a much more detailed discussion see Farrand (2016) [↑](#footnote-ref-7)
8. Gaudry and Spielberger (1971) present research suggesting a moderate degree is educationally best. [↑](#footnote-ref-8)