Abstract. In this paper I outline a theory of ego/self-worth related emotion based on the premise that ‘feelings of worthlessness’ are a maladaptive byproduct of the evolution of rationality.

Introduction

The insistence that psychology be anchored in, if not necessarily restricted to, “the third person point of view… [of] …objective physical science” (Dennett, 1991) has led to serious errors of omission in the behavioral sciences.* In the annotated outline that follows, I will attempt to address this imbalance by focusing on the evolutionary role of an egregiously neglected non-physical feature of nature, ‘feelings of worthlessness’:

The Outline

Objective: To account for ego/self-worth related emotion (e.g., needs for love, purpose, meaning, acceptance, attention, moral integrity, recognition, achievement, wealth, power, dignity, fame, immortality, religion, romance, modesty, autonomy, justice, etc.) and emotional disorder (e.g., anxiety, depression, addiction, suicide, etc.) within the context of an evolutionary scenario; i.e., to synthesize natural science and the humanities; i.e., to answer the question: ‘Why are members of one particular species of naturally selected organism (Homo Sapiens) expending significant amounts of effort and energy on the biologically bizarre non-physical objective of maximizing self-worth?’

There is no value-judgment more important to man -- no factor more decisive in his psychological development and motivation -- than the estimate he passes on himself. This estimate is ordinarily experienced by him, not in the form of a conscious, verbalized judgment, but in the form of a feeling, a feeling that can be hard to isolate and identify because he experiences it constantly: it is part of every other feeling, it is involved in his every emotional response. ... it is the single most significant key to his behavior (Nathaniel Branden).

General Observation: The species in which rationality is most developed is also the one in which individuals have the greatest difficulty in maintaining an “adequate” sense of self-worth, often going to extraordinary lengths in doing so (e.g., Evel Knievel, celibate monks, 9/11 terrorists, etc.).

General Hypothesis: Rationality is antagonistic to psychocentric stability (i.e., maintaining an "adequate" sense of self-worth).

Explanation #1 (psychodynamics): In much the manner our rationality allows for the subordination of lower emotional concerns and values (pain, fear, anger, sex, etc.) to more global concerns (concern for the self as a whole), so too, these more global concerns and values can
themselves become reevaluated and subordinated to other more global, more objective considerations. And, if this is so, and assuming that emotional disorder emanates from a deficiency in self-worth resulting from precisely this sort of experientially based reevaluation, then it can reasonably be construed as a natural malfunction resulting from one's rational faculties functioning a tad too well.

**Explanation #2 (rationality theory):** Being the blind arational process that she is, Mother Nature instills in all her creatures a sense of their own importance (or of the importance of their needs) that is rationally inordinate. And, as a species reaches a certain stage in its rational/cultural/memetic development, its members increasingly come to question this inordinacy, and increasingly come to require reasons (justification) for maintaining it (needs for love, purpose, moral integrity, religion, immortality, etc.).

**Normalcy and Disorder (consciousness studies):** Assuming this is correct, then some explanation for the relative "normalcy" of most individuals would seem necessary. This can be accomplished simply by postulating different levels or degrees of consciousness. From this perspective, emotional disorder would then be construed as a valutative affliction resulting from an increase in semantic content in the engram indexed by the linguistic expression, "I am insignificant," which all persons of common sense "know" to be true, but which the "emotionally disturbed" have come to "realize", through abstract thought, devaluing experience, etc.

**Indeterminism:** "Free will" and the incessant activity presumed to emanate from it is simply the insatiable appetite members of our species have for self-significating/self-worth enhancing experience (juxtaposed with the need to avoid the pain of feelings of worthlessness, irrelevance, etc.) which, in turn, is simply nature's way of attempting to counter the objectifying influence of our rational faculties. As such, although "free will" itself (the self-worth complex) is constrained within parameters determined by natural selection (the maximizing of self-worth), its presence in us, manifested in the need to expend significant amounts of effort and energy on maintaining emotional well-being (keeping up with the Joneses, climbing Mt. Everest, presenting papers at conferences, etc.) would, according to this perspective, be construed as evidence that members of nature's most rational species have become too valutatively objective (requiring remedial measures) and, as such, less valutatively/conatively determined by natural selection than members of less rational more emotionally stable species. In this view, indeterminism is manifested, not in the ability to change one's mind about what to have for breakfast, but rather in a species whose members are becoming less and less concerned with staying alive (e.g., daily suicide bombings in the Middle East) and more and more concerned with reasons (justification) for staying alive (needs for love, purpose, meaning, etc.).

**Ethics:** Since, according to this explanation, more rational equates or correlates with more valutatively objective, the moral maxim, 'Love (i.e., intrinsically value) your neighbor as you love (intrinsically value) yourself' could be construed as an imperative of an implicit theory of rationality in which 'being rational' is simply a matter of 'being objective'. This would also mean that, to the extent this "implicit theory" turns out to be correct, the author of Genesis actually got it right in referring to our awareness of right and wrong as a form of knowledge.

**Moral Sentiment:** If the emergence of an awareness of right and wrong is simply an emerging awareness of the nature of rationality itself, then it would also provide a rationale for the persuasive force of moral argument, in that it could be construed as exploiting our need to view ourselves as rational as a determinant in assessing self-worth. Although, as a part of the basis for assessing self-worth, none of us can actually measure up to the standard of loving others as we love ourselves.
(valuative objectivity), in this view we nonetheless come to experience feelings of worthlessness (guilt) along with a corresponding reduction in the will to survive (depression) when we deviate from the standard to an unreasonable degree. In other words, a capacity for guilt (having a conscience) is a part of the price we humans have had to pay for having become a little too objective (too rational) for our own good – a maladaptive (from the standpoint of the individual or “gene”) manifestation of our need to justify our existence by conforming to a shared subconscious theory of rationality in which ‘being rational’ is simply a matter of ‘being objective’.

We are nicer than what is good for our selfish genes (Richard Dawkins).

**Incompleteness:** When viewed from the context of our general hypothesis, ‘feelings of worthlessness’ can be construed as providing an empirical vindication of the Lucas/Penrose perspective on Godel’s ‘Incompleteness Theorem’, i.e., the much contested argument that rationality cannot be constrained (captured in its entirety) within a formal system (e.g., logic) and therefore that “minds are different from machines” (Lucas). This empirical vindication is based on the following assumptions and inferences:

1. That human beings have been programmed by natural selection to survive.
2. That human beings do not survive by blindly responding to stimuli with no understanding of the overall objective such mechanisms have been “designed” to achieve, as is likely the case with most other species, but as the result of a conscious intention to survive often involving long range planning (e.g., agriculture).
3. That the basis of the conscious intention to survive, at least when not under the influence of fear, anger, pain, etc., is the value the organism places on its own existence, i.e., its self-value.
4. That ‘feelings of worthlessness’ constitute evidence that humans are beginning to question the value of their existence and therefore are beginning to question the value of the fixed objective of nature’s most basic program (survival).
5. That the same capacity for “standing outside the system” (Lucas) that allows us to “see” that the Godel sentence is “true” is what is responsible for our ability to stand outside of nature’s program and question (in the guise of ‘feelings of worthlessness’) whether it is one worth completing.
6. That rationality cannot be constrained (captured in its entirety) within a formal system, not even by Mother Nature herself.

So even if mathematicians are superb cognizers of mathematical truth, and even if there is no algorithm, practical or otherwise, for cognizing mathematical truth, it does not follow that the power of mathematicians to cognize mathematical truth is not entirely explicable in terms of their brain’s executing an algorithm. Not an algorithm for intuiting mathematical truth – we can suppose that Penrose has proved that there could be no such thing. What would the algorithm be for, then? Most plausibly it would be an algorithm -- one of very many -- for trying to stay alive... (Dennett, 1989) [emphasis mine]

Oops! Sorry! Wrong program, old bean! [my response to Dennett’s failure to notice that, in man, the program for self-worth maximization often trumps the program for “trying to stay alive”]

*I have often felt as though I had inherited all the defiance and all the passions with which our ancestors defended their Temple and could gladly sacrifice my life for one great moment in history* (Sigmund Freud). [emphasis mine]
Outline Annotations

**Introduction: “serious errors of omission”:** Gleitman’s *Psychology* (1981), at one time the bible according to cognitive science, offers over 700 pages on everything from acquisition curves to zygotes, without a single reference to self-esteem, feelings of worthlessness, guilt, self-worth, etc. And, Eibl-Eibesfeldt’s humongous tome on *Human Ethology* (1989) somehow manages 850 pages on topics ranging from abstraction to zebra finches, while studiously ignoring this same class of features. The same applies to *The Adapted Mind* (Barkow, Cosmides and Tooby, 1992), viewed by many as the cornerstone of evolutionary psychology. But then I am hardly the first to suggest that psychology has been adversely affected by what is basically a metaphysics (mechanistic materialism) masquerading as an epistemology (logical positivism and its descendants):

> From early in this century to the present day, psychology has been characterized by a number of polarities reflecting various conflicts and tensions in the field... By the late 1950's voices expressing deep dissatisfaction with the discipline appeared. Most notable was the appearance at this time of the monumental *Psychology: A Study of a Science*, edited by Sigmund Koch. In that work, one eminent psychologist after another, after many years -- or even a lifetime of research -- admitted to strong doubts about what had been achieved, and some suggested that our most basic assumptions had to be questioned.

Koch's diagnosis was incisive. He argued that psychology was unique insofar as "its institutionalization preceded its content and its methods preceded its problem's... The 'scientism' that many see and decry in recent psychology was thus with it from the start... From its earliest days of the experimental pioneers, man's stipulation that psychology be adequate to science outweighed his commitment that it be adequate to man" (p. 783). And even more crucially, Koch went on to point out that "psychology still bases its understanding of vital questions of method on an extrinsic philosophy of science which, in some areas, is [forty] years or more out of date" (Manicas and Secord, 1981).

**C1. General Hypothesis: “Rationality”:** I am assuming the term, "rationality", refers to the cognitive map we carry in our heads and in which the amount or degree of cognitive rationality correlates with the extent to which this map is comprised of beliefs that accurately and coherently represent reality including, among other things, beliefs about how to acquire beliefs that accurately and coherently represent reality (epistemics). I am also assuming that when we refer to an individual as "rational" or "irrational" that we are simply expressing an appraisal of how this individual's cognitive map compares to the norm in this regard including, among many other things, whatever beliefs this individual might have that are related to the use or abuse of logic.

Although there are a number of reasons why I am interpreting this attribute or concept in this fashion, suffice it to say that the only justification I deem necessary is that this is not incompatible with our common sense understanding of what rationality "is". In this respect, I all but invariably visualize a follow-the-dots diagram in which an increase in cognitive rationality correlates with the extent to which the lines have been connected correctly and completely and in which cohering lines (coherent beliefs) count for more than dispersed lines in terms of the ability to "see" what the diagram represents. For various reasons, I visualize
value in terms of the lightness or darkness of the lines (e.g., regions of the diagram that represent valued objectives, individuals, etc.).

One of the slipperiest terms in the philosophical lexicon, rationality is many things to many people (Alvin Plantinga).

C2. General Hypothesis: “Rationality is antagonistic to psychocentric stability”: In addition to the interspecies correlation cited in support of my general hypothesis (General Observation), there is also clinical data pointing to a similar conclusion:

To summarize, traditional conceptions of mental health assert that well-adjusted individuals possess relatively accurate perceptions of themselves, their capacity to control important events in their lives, and their future. In contrast to this portrayal, a great deal of research in social, personality, clinical and developmental psychology documents that normal individuals possess unrealistically positive views of themselves, an exaggerated belief in their ability to control their environment, and a view of the future that maintains that their future will be far better than the average person's. Furthermore, individuals who are moderately depressed or low in self-esteem consistently display an absence of such enhancing illusions. Together, these findings appear inconsistent with the notion that accurate self-knowledge is the hallmark of mental health (Taylor and Brown, 1988).

D1. Explanation #1 (psychodynamics): “concern for the self as a whole”: There is an implicit assumption here that prudence (i.e., increased valuing of one’s hypothetical future juxtaposed with a relativized valuing of one’s immediate wants and needs) is highly adaptive and that the underlying hardware that has given rise to its invention and maintenance heavily selected for while morality (e.g., an increased valuing of non-related others juxtaposed with the volatility in self-value underlying guilt) is much more of a mixed bag (e.g., self-incinerating Buddhist monks, etc.), particularly at the level of description at which most selection is presumed to operate (the individual or “gene”). This, in turn, suggests that morality has not so much been selected for as perhaps “hitchhiking” on the same hardware. Corroborating empirical evidence, at least of a linkage or leakage between prudential and moral values, can be found in Arnhart, 1998:

The reckless behavior of psychopaths in responding to momentary impulses with no concern for future consequences makes it impossible for them to act prudently for any long-term good... The same emotional poverty that prevents their caring about the feelings of others also prevents their caring about their own future... [confirming William Hazlett’s insight] that it is the same sympathetic imagination that “must carry me out of myself into the feelings of others...by which I am thrown forward as it were into my future being and interested in it. I could not love myself, if I were not capable of loving others”.

D2. Explanation #1 (psychodynamics): “rationality allows for...subordination...to other more global, more objective considerations”: Relying on Hume’s observations on the manner in which association “facilitates the sympathy”, I have offered a more detailed account of the mechanics of this process in Roberts, 2002. This culminates in the postulation of a psychodynamic mechanism in which ‘an increase in cognitive objectivity (knowledge, intelligence, wisdom, cognitive competence, rationality, etc.) “facilitates” an increase in valuative objectivity (e.g., an increased valuing of non-related others juxtaposed with an
increased volatility in self-value underlying the emotion of guilt) irrespective of its adaptiveness’, and in which the less than optimal values are simply “tolerated” as a necessary premium for reaping the adaptive rewards that attend a rational species:

In its most simplistic formulation, accounting for the sustained presence of a mechanism presumed to produce maladaptive values (deviations from the predicted profile of “ruthless selfishness, “self-serving opportunism”, etc.) is simply a matter of assuming that developments in our cognitive profile have enhanced our ability to survive to such a degree that it more than compensates for the ensuing dissipation and volatility in the resolve (the optimal values) to do so.

D3. Explanation #1 (psychodynamics): “one’s rational faculties”: In addition to whatever mechanics are involved in the production of more global values as a result of a more global understanding of how the world is put together (previous comment), there is also the matter of how this more global understanding itself comes into being through the process of “reasoning”, whether one’s own or acquired from one’s culture, a topic I have commented upon in Roberts, 2005:

Not uncommonly, deductive syllogisms such as ‘Socrates is a man, all men are mortal, therefore Socrates is mortal’, are offered as examples of reasoning. This is not how I am employing the term... which is why it appears in quotation marks. I mean for it to refer to whatever thought process lies at the heart of ampliative inference, a process often associated with ‘Aha!’ or ‘Eureka!’ experiences, but commonly falling below the threshold of an identifiable event in which much, if not most, of the processing is not introspectively available. Even so... I believe enough is available for us to make a reasonable guess that the cognition of similarity and difference (analogical/metaphorical “reasoning”) does most of the heavy lifting. But then I am hardly the first introspectionist to arrive at that conclusion:

‘All kinds of reasoning consist in nothing but a comparison and a discovery of those relations either constant or inconstant, which two or more objects bear to each other’ (Hume, 1739).
E1. Explanation #2 (rationality theory): “rationally inordinate”: Given the premise that nature is a “blind arational process”, it is reasonable to infer that our sense of our own importance may be “rationally inordinate” in spite of the fact that we might have no clear initial understanding of what this might mean. In this way, we can allow nature herself to fill in the details in terms of the implications generated by our general hypothesis.

F1. Normalcy and Disorder (consciousness studies): “a valuative affliction”: This should not be confused as a claim that emotional disorder is exclusively a valuative affliction, since it is obvious that genetics and physiology also play a role. But it is a claim that values probably play a much greater role than is commonly appreciated due to the fact that psychology has been dominated by “an extrinsic philosophy of science that is [fifty] years or more out of date” (Koch, 1963) in which it is too often assumed that one simply isn’t being scientific unless one fixates on physical causes.

F2. Normalcy and Disorder (consciousness studies): “an increase in semantic content”: I have employed this unorthodox terminology, not to impress the reader with my erudite understanding of emotional disorder, but to suggest a new way of thinking and talking about the matter -- one in which emotional disorder is understood in terms of the behavior of abstract psychical entities. In particular, one might surmise that this particular increase in semantic content arises from an increase in the value one attaches to the “truth” of the engram or belief indexed by the linguistic expression, “I am insignificant”, both of which are types of content presumed to occupy the form of the engram, and all of which might be considered as alternative ways of thinking and talking about an increase in consciousness. As to the ontic status of these postulated entities, they are based on the identification of pertinent features of nature in much the manner the entities postulated by physical scientists are, but with the advantage that it is perhaps a bit easier to remain in touch with the fact that they are, in the final analysis, constructs of human imagination.

Physical concepts are the free creations of the human mind and are not, however it may seem, uniquely determined by the external world (Albert Einstein).

F3. Normalcy and Disorder (consciousness studies): “the engram, ‘I am insignificant’”: Although not precisely synonymous, I am assuming that talk of one’s insignificance is roughly interchangeable with talk of one’s worthlessness, and therefore that truth and value talk more or less intersect where this issue is concerned.

G1. Indeterminism: “less valuatively/conatively determined”: It is important to understand that, in spite of the contention that this is an indeterminism in our values, and as such captures the long sought prize of “free will”, or at least a less genetically determined will or values, it is nonetheless a qualified indeterminism in which nature “tolerates” a less than optimal valuative profile in exchange for something (see D2 above), and as such constitutes a thoroughly naturalistic account of “free will” in which the physical costs and benefits still come out in the black for the organism or “gene”. In this view, we’re still every bit as determined by nature as other creatures, it’s only our values/will that have/have become less determined. But then that’s the most important part, now, isn’t it?

But as brains became more highly developed, they took over more and more of the actual policy decisions, using tricks like learning and simulation in doing so. The logical conclusion to this trend, not yet reached in any species, would be for the genes to give the survival machine a single overall policy instruction: do whatever you think
best... (Richard Dawkins).

H1. Ethics: “more rational equates with more...objective”:  Being objective should not be confused with striving to be objective. This may seem a trivial distinction, but it is one that is significant for a theory in which rationality is presumed to equate or correlate with objectivity. Striving to be something is a strategic notion and, therefore, can readily entail a lack of objectivity regarding the significance/value of the end. As such, for example, it can be relatively irrational to strive to be rational, at least to the extent one becomes a monomaniac. This is the implication in the Frankenstein story, in which our intuitions are informing us that there is something irrational about Dr. Frankenstein's obsession with the quest for knowledge at all costs. This also explains why and how reasons can be more or less rational, i.e., “good” versus “bad” reasons. Reasons are strategic animals, whereas rationality appears to be more a matter of objectivity and reasons can have more or less of it in them.

H2. Ethics: “‘Love your neighbor as you love yourself’”:  It is important not to confuse this maxim with the Golden Rule, i.e., “Do unto others as you would have them do unto you”. The Golden Rule is unsuitable as a moral maxim in that it can easily be construed as a prudential maxim in which one is advised to do nice things in the expectation that others will return the favor. Furthermore, it lends itself to the view that morality is more a matter of doing something than a matter of being something, i.e., valuatively objective and, as such, fails to do justice to the fact that morality is more a matter of selfless (i.e., valuatively objective) intention than a matter of overt behavior.

H3. Ethics: “to the extent this implicit theory turns out to be correct”: It does. In a subsequent paper I will demonstrate how this “implicit theory”, assuming that is what it is, can maximize explanatory coherence better than competing theories such as the means/end theory, rational choice theory, egoism, utilitarianism, etc., in that it can be employed to resolve a number of rationality paradoxes such as the paradox of rational irrationality, cognitive versus practical rationality conflict, the “rationality debate” (Cohen versus Kahneman and Tversky, 1981) and the paradox of ‘The Prisoners’ Dilemma’.

H4. Ethics: “the author of Genesis got it right”: Although the Genesis reference to a knowledge of good and evil is compatible with my thesis that morality issues from an implicit theory of rationality in which ‘being rational’ is simply a matter of ‘being objective’, Adam and Eve’s awareness of right and wrong was manifested, not in an awareness that they should ‘love others as they loved themselves’ (valuative objectivity), but rather in an awareness of and discomfort with their nakedness which, on the surface, might seem incompatible with my thesis:

As they ate [the apple], suddenly they became aware of their nakedness, and were embarrassed. So they strung fig leaves together to cover themselves around the hips (Genesis 3:6).

This feature of our morality can be accommodated to my thesis by simply assuming that our sexual appetites are as much an impediment to our valuative objectivity at the intrapersonal (prudential) level as selfishness is an impediment to our valuative objectivity at the interpersonal level. And, although this is a characteristic of most of our biological emotions (fear, anger, etc.) and appetites (hunger, thirst, etc.), sex is in a category all by itself. It’s incoherent with the remainder of our biological functions in that it operates entirely in the interest of a few cells in the gonads rather than the interests of our physical well being. This
incoherence is further amplified by the fact that it requires an appreciation for regions and features of the body that in nonsexual circumstances we find the least aesthetically appealing. As such, like open displays of pain, fear and anger in certain social contexts, sexual values are a threat to our sense of self-control and our need to see ourselves as rational, i.e., valuatively objective, beings.

**J1. Moral Sentiment:** “none of us can actually measure up to the standard”: This could actually be construed as a prediction of our general hypothesis. As a consequence of another one of its implications (incompleteness), it is unlikely that any individual, belief, objective, theory, etc. is going to be rational in any but a relative sense of the term. Since this would apply to the current theory as well, it is one that implicitly predicts its own eventual demise.

**K1. Incompleteness:** “Godel’s ‘Incompleteness Theorem’”: This is a reference to Kurt Godel’s demonstration (1931) that for any formal (logical, mathematical, rule driven, etc.) system capable of simple arithmetic, there is at least one well-formed sentence or theorem, usually referred to as the Godel or G sentence, that cannot be proven in the system. Interestingly enough, because of our ability to attach meaning to the symbols employed in such a proof, the G sentence is one that we humans can quite easily “see” to be true in that its semantic interpretation is simply: ‘This sentence can not be proven in this system’. Since machines (computers) can prove theorems, but cannot prove the Godel sentence without a logical contradiction, Godel’s theorem has served as the basis for a much contested argument, originally championed by J. R. Lucas (1961) and more recently by the physicist, Roger Penrose (1989, 1994), that “minds are different from machines” (Lucas). Interestingly enough, one of the most lucid statements of the Lucas/Penrose perspective comes from Douglas Hofstadter (1979), who himself is perhaps one of its most well-known critics:

> Looked at this way, Godel's proof suggests -- though by no means does it prove! -- that there could be some high-level way of viewing the mindbrain, involving concepts which do not appear on lower levels, and that this level might have explanatory power that does not exist -- not even in principle -- on lower levels. It would mean that some facts could be explained on the high level quite easily, but not on lower levels at all. No matter how long and cumbersome a low-level statement were made, it would not explain the phenomena in question. It is analogous to the fact that, if you make derivation after derivation in [Peano arithmetic], no matter how long and cumbersome you make them, you will never come up with one for G -- despite the fact that on a higher level, you can see that [the Godel sentence] is true.

What might such high-level concepts be? It has been proposed for eons, by various holistically or “soulistically” inclined scientists and humanists that consciousness is a phenomenon that escapes explanation in terms of brain components; so here is a candidate at least. There is also the ever-puzzling notion of free will. So perhaps these qualities could be "emergent" in the sense of requiring explanations which cannot be furnished by the physiology alone (ibid, p. 708).

**K2.** In Roberts, 2005, based on a number of explanatory advantages, I have argued that cognition is probably more a matter of cognizing rules than a matter of following rules (e.g., logic) and, with it, the capacity to transcend those rules once cognized. If so, then we would have reason to suspect that there might well be an inverse correlation between ‘being cognizant’ or ‘being rational’ and ‘being determined’.
References

2. Barkow, Cosmides and Tooby ed. (1992), *The Adapted Mind*
16. Roberts, Jr., Phil (2002), ‘Why We Turned Out Like Captain Kirk Instead of Mr. Spock’, first presented before the *Association for Politics and the Life Sciences*, Montreal, Canada. Available at www.rationology.net
17. Roberts, Jr., Phil (2005), ‘Rehabilitating Introspection’, first presented before the *Association for Politics and the Life Sciences*, Washington, D. C. Available at www.rationology.net