Noesis

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THE MOSTLY KEVIN LANGDON ISSUE WITH TWO LETTERS FROM LANGDON REVIEW OF *THE BELL CURVE* BY KEVIN LANGDON PLASTIC SURGERY REPORT BY RICK ROSNER

STANDARD REMINDERS: SEND IN STUFF!

Chris Cole's email address: chris@questrel.com Dues: two bucks per issue, payable to Rosner

A LETTER FROM KEVIN LANGDON

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Kevin Schwartz' critique of naive appeals to subjective experience in support of the idea of free will in *Noesis* #81 is right on, but it isn't the last word on the subject. One key distinction is that between consistent and inconsistent action. The former may or may not be the result of free will; the latter definitely isn't.

Impartial self-observation reveals that inconsistency is one of the fundamental characteristics of the human psyche. But, although man is born divided, he can become one and indivisible. Examples of the unity of which I write have appeared throughout human history in the founders and great exemplars of the world's spiritual traditions (e.g., Jesus, Buddha, Socrates, Lao Tzu), though other great initiates have undoubtedly escaped the attention of historians.

The great teachers of humanity have spoken, in diverse vocabularies, of the possibility of an inner freedom for man and a return movement of attention toward the center which exists within himself and in all things, once he abandons his attachments to particular inner and outer reference points.

No one can be faulted for *making use of* points of reference in the perceived environment (including the mind's perception of abstractions); without doing so, the intellect and other faculties cannot function. It is the enshrinement of the product of intellectual activity, reliance on frozen formulae derived from events superficially related to the situation of the present moment, and

compulsively ritualized perception and other mental activity which blind one to the reality of the moment.

It is possible for the clumsy formulating engine which can never quite keep up with the most intriguing intuitions to relinquish control of part of the attentive workspace to a faster and more subtle mind. When it becomes connected with this subtler mind, the ordinary intellect works faster and more accurately and becomes responsible for keeping in check its own tendency to reduce the subtlety of the world to static formulae.

Rick outlined the form in which he intended to produce a membership list, including listing what instrument a given member qualified on (as suggested in Ron Hoeflin's letter in this same issue), in #82; I was remiss in not speaking up to object at that point, before Rick published the roster in #88, but I am not alone in finding this practice objectionable; it violates members' privacy rights and it tends to tilt what should be a level playing field. Some Mega members are not more equal than others, as far as membership rights are concerned, despite the obvious differences in levels of real intelligence among members of this society, which are clearly more important than test scores.

In a letter in #82, Chris Langan wrote:

In a very real sense, that which is abused and neglected by others belongs to him who uses it to full advantage. In that sense, I own *Noesis*. I'm willing to share, but it'll cost you more than the intellectual chump change you've been sprinkling on it so far.

Chris was addressing Rick Rosner in particular, but the above is clearly intended also for the membership of Mega in general. Despite the *ex cathedra* quality of the delivery, I agree with Chris. It should be clear enough that no one has even attempted to respond to Chris' territorial claim until now.

Chris is capable of screwing up, though. In this same letter, he criticized Ron Hoeflin's "Hyperphilosophy," mixing general observations about the weaknesses of the theory (e.g., its failure to extend the known significantly) with arguments which fault Hoelfin's thought for not including Langan's pet theory, the CTMU. The CTMU may be the greatest thing since sliced space-time, but it's folly to assume things one's readership cannot be expected to take as solid axioms and let this complicate a critique of someone else's subject matter—which should be evaluated first within the narrowest context which includes it. This mode of response to material in *Noesis* can be expected to create a reaction against the framework of ideas Chris is attempting to promote—and this is exactly what Chris has observed.

Later in this letter, Chris made reference to a number of consequences of the CTMU, including cosmological predictions and *psi* phenomena, extraordinary claims about areas which members of Mega can be presumed to be interested in, without offering any specifics. This, too, is not calculated to win friends and influence geniuses.

Some of Chris' remarks (e.g., his response to Bob Hannon in this letter) are very reminiscent of another theory with similarities to the CTMU, Louis Mathe's *The Transcendental Structure of the Universe*, available for \$17 postpaid from Polymath Systems at the above address.

Here is a sample:

Life, as man locally knows it, must be but a colour in the spectrum of higher complexities. It is perhaps proper to speak modestly of our local biosphere keeping in mind that this life may have formidable relatives elsewhere. It would be hard to

say at what degree of complexity our concept of life would cease to be applicable: therefore, one should keep the word "Life" for everyday use and at the same time regard everything as living from electron to supreme being. When this is done, the starry heavens and man's world fuse into one immense panorama. In this panorama our impressions and compartmented knowledge look like a small spray of pigment on a large white plane on which a function has been neatly plotted. This function is the change of one kind of organization (the limit of which is the infinitely simple) into another kind of organization (the limit of which is the infinitely complex).

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After writing the above, I read Michael Price's review of Frank Tipler's book, *The Physics of Immortality*. I was aware of this book before the brief exchange about it between Rick Rosner and Richard May in *Noesis* #98, and knew that it contained an argument for an afterlife, based on speculation starting from certain scientific premises.

This interested me partly because I wrote a paper about thirty years ago, entitled "The Mechanistic Afterlife," arguing for the recreation of the matrix constituting one's personal identity endlessly in infinite time, even if the energetic conditions of the current universe are wildly improbable results of chaotic quantum events.

This review has given me a much more detailed view of the main line of Tipler's argument; it is now apparent that it resembles *The Transcendental Structure of the Universe* in its vision of the Omega Point (the term was earlier used by Teilhard de Chardin in a similar theological context), where consciousness becomes able to harness the energy of the Big Crunch, become unified as a single God, resurrect every being that ever existed or ever could, and experience subjectively infinite life.

But there's another, more sinister, side to Frank Tipler. He misused his scientific credentials to help the successful effort to kill the funding for NASA's Search for Extraterrestrial Intelligence (SETI) project in Congress in 1993. (Fortunately, much of this effort has continued with private funding, notably from William Hewlett and David Packard, Gordon Moore (Chairman of Intel), and Paul Allen (cofounder of Microsoft); a separate search project is funded by the Planetary Society.)

Tipler's argument, reduced to bare bones, was that the fact that we haven't detected signals from intelligent life beyond the earth proves that there isn't any. The man should choke if he claims to be a scientist.

In the same letter in #82, arrogantly addressing his remarks to "THE REST OF YOU," Chris Langan wrote:

It is well known to child psychologists that an extreme predilection for fantasizing and daydrearning over logical reasoning is a reliable indicator of mental immaturity. On the other hand, IQ is defined in such a way as to imply relative intellectual *maturity*. Something's badly out of whack here.

I think I finally know what that something is.

A. You think that metaphysics is so utterly divorced from reality that, whereas you'd never be caught dead "speculating" about what you think are matters of hard fact, you feel free to indulge yourselves when it comes to "metaphysics."

B. You distrust and deeply resent anyone who says that your playground of selfindulgent speculation is actually just another matter of hard fact.

Thus, by introducing the CTMU, I appear to be depriving you of a cherished dimension of intellectual creativity.

like touching things, playing with them, and tasting them.

As a child ages, an open and experimental attitude changes, little by little, into the habitual use of the power of imagination to avoid confronting reality, under the deadening influence of power relationships, insincerity of others and their expectation of insincerity from him, and ambiguous social conventions. This leads to the development of selective blindness to the inner contradictions required to respond acceptably to the situatifons, mostly not self-chosen, with which the child must cope.

Usually, people get completely mired in mechanical habits of perception, posture, movement, emotion, association, and imagination long before they've acquired enough knowledge to see anything beyond the closest few trees. There is a tendency for the crossover point between the simultaneous processes of maturation and senescence to occur later among more intelligent people, but open-ended thought is rare even at the highest levels. The tyranny of unconscious thought enslaved to reified categories can be even worse for an intelligent person, as there is so much more mental production to become entranced with.

Often, highly gifted children make more use of fantasy and daydreaming as a defense than most people, because they're unusually fluent in this area and because they have more need of it. A child of more ordinary intelligence might succeed in denying or not thinking about something he doesn't want to see; the highly gifted child requires more elaboration to fool himself.

I doubt very much that most members of Mega feel challenged-much less intimidated-by the CTMU. They haven't taken the trouble to follow it. Certainly there are a number of members who are interested in metaphysics and take *it* seriously. They just don't take *the CTMU* seriously, partly because Mega members are the kind of screw-offs that Rick says they are and partly because they haven't been convinced that this particular subject matter is worth a lot of work.

According to Chris:

There are two schools of thought about what the Mega Society is. The Rosner/Clifton School maintains that it is a ridiculous collection of culturally advantaged underachievers. The Langan/Cole School maintains that it can, under the right circumstances, "change the world."

I don't belong to either school. If the premise of the first school were right, I wouldn't bother to participate in Mega, though I do think the society contains people in the indicated category-as well as genetically advantaged underachievers.

I'm more sympathetic to the second school but I don't like the institutional flavor, having seen enough excesses in this direction in the ISPE; I'm far more comfortable with the idea of a society which functions as an open marketplace of ideas which can be made use of by those with something to offer to the world. Chris takes this same approach in practice, but is more upset than I am by all the crap. An aphorism of mine is appropriate here: Cream rises to the top-but shit floats, too.

In a letter in response to a letter from LeRoy Kottke (both letters are included in #82), Chris wrote, "When you say that 'logic did not lead you' to a given conclusion, but that observation and induction did, I don't know what you mean." I understand what LeRoy meant. Understanding something directly, through experience, has a different taste from coming to a conclusion mentally, even if it has a cognitive aspect; when there is a cognitive dimension of

understanding, it is as the result of a relationship between the intellectual mind and the equally valid instruments of knowledge contained in the body and emotions. Only through a more harmonious relationship among the ordinary psychic functions can a reliable connection be established with the subtler mind of which I wrote in my reply to Kevin Schwartz.

Chris continued: "I fail to see how your position differs from that of the CTMU, except in your extremely informal use of terms like 'exact and eternal'." While I'm interested in following Chris' thought and find it suggestive of a subtle point of view which I don't grasp fully at this point, I find Chris' idiosyncratic terminology and weird usages ambiguous. LeRoy's terminology, on the other hand, (including ''exact and eternal') is quite clear in context; Chris apparently had no trouble understanding what LeRoy was getting at in using this phrase, either, as he used it appropriately in replying to LeRoy.

At the end of a second letter to LeRoy Kottke, also included in *Noesis* #82, Chris made a very direct statement that takes us a long way toward understanding his attitude toward the readers of his writings and the resistance these readers have to accepting his ideas:

Incidentally, congratualations! My records indicate that you are a nonmember-subscriber to the Mega Society journal. However, simply by recognizing the importance of the CTMU, you have elevated yourself to a higher position on the scale of actual intelligence than most of our "members," and you can take that to the bank. This is due to your performance on the top-level "IO test" encrypted in the form of my contributions to Noesis. Of course, your score is only preliminary and approximate, but it is clearly among the most promising to date. To see why the CTMU is superior to other adult intelligence tests which have appeared in Noesis, consider that (1) it imbues every aspect of reality and is thus "unbiased" with respect to those parts of reality in which you dwell and in which you are interested (practically everyone has thought about what reality is, and anybody who hasn't has no business taking any high level IQ test); (2) its points are logically and mathematically solved and need not be "scored" on bases like consensus or point of view; (3) it has now been tried out on a group of wellstudied subjects with respect to whom it displays an unprecedentedly high "top end" (inasmuch as most of them are well on their ways to flunking it through neglect or implied rejection); (4) by its very nature, it can only be designed and administered by a real genius intellectually qualified to judge the intelligence of others: (5) as an ultimate theory of the nature and scope of intelligence, it is uniquely valid as a scale of intellectual awareness; and (6) it is no mere bag of puzzles, but has such innate importance as to be invulnerable to questions of motivational deficiency.] [Brackets Langan's, except these.]

Chris is right about much of this, whether or not there are fatal flaws in the CTMU. There is no doubt in my mind that he is someone who has actually learned to use his mind creatively and thus is actually more intelligent than 99.9999 percent of people. Given the uncertainties of measurement using standard psychometric instruments at this level, this is no small thing, even within the nominally-99.9999th-percentile population of Mega members.

Having met more people who have made test scores above the four sigma level than anyone else, I am quite confident that I can make better judgements of intelligence (particularly at very high levels) by direct contact with a person, in person or through correspondence, than through any paper-and-pencil test. I don't doubt that Chris is also a good judge of intelligence.

In response to the first four of Chris' numbered points:

(1) One defect of the CTMU as an intelligence test is that it requires a considerable amount of specialized background (no matter how general it is once it's understood); my tests come closer than anything else currently available to measuring fluid g. Tests like the *LAIT* and the *Mega*, which *are* "mere bags of puzzles," have the advantage of multiple sampling of intellectually adaptive behavior because their items are independent of one another.

(2) This point does not apply to my tests, but it is a limiting factor for many other highrange tests. The only place where consensus comes in is in screening for multiple answers to test items; once some clever person has found an alternative answer, whether that answer is correct or not is entirely objective.

(3) Sufficient ceiling is a serious problem at this point. The LAIT had plenty of ceiling for what is was originally intended for-selecting members of the Four Sigma Society, but it doesn't have enough ceiling for accuracy at the mega level and above; the forthcoming STAR will have another half a standard deviation or so of range, making it competitive in difficulty with the Mega Test, but even this is pushing it for the purpose of selecting members of the Mega Society, as a test is most accurate near the middle of its range.

(4) The need for "a real genius" to administer a test is a bug, not a feature.

Ron Hoeflin's critique of Chris Cole's "Short Form" test in #83 is telling, though it doesn't go quite far enough.

I agree with Ron about the need to test the test items. Ron uses preliminary tests and then combines the best problems from each; I revise my tests, discarding bad items, and I don't score items known to be bad in the interim. Any test author who doesn't use some such method of quality control will get a large, and unnecessary, random component which will greatly reduce the reliability of his tests.

The discussion of the answers to test items in *Noesis*, which "disappointed" Ron (a charitable way to put it), was even more damaging. No item that has been the subject of these discussions can be used as the answers are now public information.

(Ron is also correct that it was dumb of Chris to reveal the answers to problems that were not used that Ron had spent a lot of time creating; Ron could have made use of those items for other projects. I have frequently ear-marked test items for one test, then used them in another. I was pleased to see that Chris apologized for this mistake.)

Another criticism of the "Short Form" test is not mentioned by Ron. At this point, the test consists almost entirely of three types of problems: number and letter series and similar problems; spatial-combinatorics problems; and verbal analogies. Unfortunaately, none of these item types is well-suited for the measurement of g.

Number series give a very large advantage to those who have studied certain branches of mathematics, as do spatial-combinatorics problems. Also, while number series problems are easy to construct, both types of problems are very tedious to solve (for the majority of test-takers-I know; I've got the correspondence from pepole who've taken my tests). I no longer use number series at all on my tests, for these reasons. Some of my problems do have a combinatorial aspect, but I'm very careful not to let the mathematical sophistication needed to untangle the combinatorial aspect of a problem overshadow the insight into what combinations need to be looked at.

Verbal analogies are usually highly loaded on crystallized intelligence (possession and use of cultural information); evaluation of fluid intelligence is difficult using this item type.

The raison d'etre for the "Short Form" test was the creation of an instrument which would have a lot of ceiling and yield scores after a relatively small amount of work by test-takers, even at the cost of some accuracy.

The shortness of the "Short Form" test could be a problem if it winds up being too short. It's possible to get more accurate results for a given number of items on non-multiple-choice tests, because there's less noise as a result of guessing, but the difference is least significant at the high end. A multiple-choice test should have something like 50 items for maximum accuracy and 30 items for reasonable accuracy; a non-multiple-choice test needs about 30 items for maximum accuracy and 18-20 items for reasonable accuracy, averaged over its entire range-but there is no such difference in the number of items required for a given level of accuracy at the test ceiling and little near it.

In the same letter in which he criticized the "Short Form" test, Ron referred to the wellknown high correlation of vocabulary with general intelligence. A question that interests me, and may also interest you, is whether that correlation holds up at high levels (say, above three or four sigma). My suspicion is that it doesn't.

Ron wrote:

In Bias in Mental Testing, I believe that Arthur Jensen argues that ability in math, music and chess are specialized aptitudes, since one finds child prodigies with each of these talents. General intelligence, on the other hand, I believe he considered to be primarily verbal in nature.

Dr. Jensen is a believer in g, the general factor in intelligence, and does not believe that it can be reduced to any single specialized factor, into which category he places verbal intelligence. He does observe that many verbal *tasks* have a high loading on g.

Ron argues for vocabulary, as opposed to problem-solving, as a measure of past "struggle" to "tap" intelligence, over a much longer period of time than the time spent working on a problem in real time. One difficulty with vocabulary is that it isn't a matter of *struggle* in the past, either, for the most part, but rather of *familiarity*. There are very few words that stand for really hard concepts. It's significant if a person understands accurately the meaning of a word like "relativity," but it makes a lot less difference whether he happens to know the word "amphigory." You can't get a better reading on how well a person thinks than by giving him a problem to work on which actually requires thought.

The best verbal items are the questions on reading passages contained in tests like the SAT. There is one major difficulty with questions of this type, however: it is hard to make them difficult enough. Highly intelligent people tend to interpret things according to their own lights, and therefore differently; the more subtle the question, the more these differences will interfere with the measurement of objective differences in depth of understanding.

Twelve new problems for the "Short Form" test appeared in #83. Unfortunately, they were misnumbered. #79 contained problems ##20-34, but the problems in #83 are numbered 32-43. There are two ways to deal with this: the problems in #83 could be renumbered or problems 32-34 in #79 could be referred to as 32A-34A and the problems mislabeled 32-34 in #83 as 32B-34B. I favor the latter approach, as it avoids compounding the confusion.

Noesis #83 also contains the Eight Item Test, by Alan Aax. Despite its brevity, this is a very challenging test, containing problems ranging from fairly tough to fiendishly difficult. I urge those of you who haven't attempted it yet to give it a try.

Kevin Schwartz: Your father, as you describe him in *Noesis* #84, sounds like just the sort of person (your examples: Fischer, Polgar, Chomsky, Pauling, Golomb...) that you suggest Mega should recruit.

I found Robert Dick's remarks about the non-commipotence of God in #85 very interesting. This is an idea that has been around for a long time, in a number of spiritual traditions. In relation to the idea that even God cannot change the past, Robert cites a Jewish prohibition against praying for things that have already happened to turn out differently than they already have.

If there were a God who listened to prayers and the many-worlds interpretation of quantum mechanics were true, and if it were possible to "migrate" from the world-line one was myoing along to another where certain things turned out differently, there would be a way out: one could pray to move to a more favorable line after the point at which the two lines branched. This could only be regarded as plausible if God answered such prayers only if the one offering them didn't know the outcome in advance, since we don't hear about a lot of cases of God rearranging reality (at least not from people who aren't religious nuts). This idea seems like somewhat of a long shot.

Some Christian theologians have held that God was constrained in creating the universe, that, e.g., mathematics is ontologically prior to God. According to Gurdjieff's cosmology (outlined most fully in his *Beelzebub's Tales to His Grandson [All and Everything*, first series]), God was forced to create a hierarchy of worlds as a support for his principal place of existence, the Sun Absolute, against the ravages of entropy, through the return movement of those rare sentient beings who become aware of the possibility of moving upward against the current of the Ray of Creation back toward the source, and who actually do the very difficult work required to actualize this possibility.

In a P.S. to his letter, Robert wrote:

I oppose publishing the names of the tests members have taken to qualify for Mega. I thought the idea of second-class membership for non-Mega-Testqualifiers was finished. Now I see it rearing its ugly head again.

I agree with Robert. Mega members are entitled to be treated as equals, regardless of which test they qualified on, and are also entitled to keep their test scores private if they wish to do so.

An announcement submitted by Richard May for the ISPE's collection of writings, *Thinking on the Edge*, appears in #85. I have examined this book. About a quarter of the pieces included are really good essays, in my estimation, but most of the material included is naive, embarrassing junk.

In Noesis #85, George Dicks exhibited five figures purported to be "thrackles," as defined in John Conway's prize problem printed in #75. As Chris Langan pointed out in #87, none of the figures exhibited by Dicks is a "thrackle." Even the simpler figures, based on squares, include opposite sides which neither share a vertex nor cross each other. George wrote, "There are a potentially infinite number of solutions of which here are a few." But while there are infinitely many *thrackles* (belonging to several infinite families) I have not succeeded in finding any with more edges than vertices, as required by the problem. I don't believe this is possible, though I don't have a proof at this point. Does anyone know whether this problem has been solved?

What a lofty figure is Chris Harding, according to his resume, printed in *Noesis* #85: "Super Genius," the second-most-creative member of Mensa, tied for smartest per-son in the world, founding member of a society named after Betty Hansen's cat.

First he was elected "Philosopher" by the society he founded (why didn't Chris mention this?), then he was elected Chevalier, then Baron, then Commander Knight, then Count, then Vice-King. Can his coronation be far off?

Rick Rosner's speculation in #90 that he [Rick] suffers from a mild form of autism makes sense. It is a truism in psychological theory that the various forms of psychopathology are normal functions gone wild; they can be thought of as cancers of the psyche. It's easy to find examples of neurotic manifestationas like compulsiveness and fixations, and of schizoid dissociation, in the pages of *Noesis*.

In Chris Harding's letter in #90, he wrote:

For those who missed it in the press academicians in Cambridge England ran the relitivity [sic] equations on super-computers and found it tragically flawed about two years ago. Their work showed that relativity breaks down with naked singularities.

The mathematics of singularities is a very tough problem, one which is by no means regarded as solved. Classical relativity doesn't *attempt* to explain them. It isn't "relativity" but specific theories based on it and attempting to extend it which, so far, have not been adequate in this area.

A LETTER FROM KEVIN LANGDON

Noesis #91 starts right out with the Robert Hannon matter. Without getting into irrelevant details, I'd like to outline my view of this, because most of what I've read about it, on both sides of the issue, seems wide of the mark.

Mr. Hannon's writings are full of elementary errors and show that the author has not taken the trouble to understand the things he's criticizing. Others with more expertise in this field than I have pointed out many of these errors; I will not add to their critiques.

Whether Mr. Hannon is a member of Mega is almost irrelevant. The key factors governing the selection of material for *Noesis* should be: whether the material can be expected to interest the members of the Mega Society; availability of the journal for all sides of disputed matters, regarding both ideas and society business, to be heard; and the limitations of available space.

It's hard to get a good editor for a high-I.Q.-society journal. I don't want Rick to feel any pressure from me to change his editorial decisions as long as there's no systematic censorship (as there is, e.g., in the ISPE's *Telicom*, in which no dissenting views are permitted).

But, in my view, the quality of Mr. Hannon's writings does not justify the expenditure of Mega Society funds to publish them. (Of course, we should allow Mr. Hannon a little bit of space to squawk about not having his stuff published, but he has no valid claim on space in *Noesis*.)

I'd like to add one more thing. I'm bored shitless with articles on relativity and similar highly technical subject matter. The only way to make substantive statements about these subjects is with more math than I'm willing to get into for the sake of reading *Noesis* from cover to cover. I suspect that the majority of Mega members feel the same way; tell me if I'm wrong.

I don't like seeing several issues of *Noesis* in a single mailing; frequent exchange is the lifeblood of a society whose principal existence is through its journal. I say this not to criticize the editor, but because I want to make it clear that I'm not suggesting less frequent publication of

Noesis, but rather smaller issues, if necessary, in order not to publish the anti-relativity rants, the religious tracts, the bad poetry, and the other crap that often clutters the pages of our journal.

The Wisdom Society brochure reprinted in *Noesis* #91 makes a weird impression. It leaves out the crucial issue of how to decide *who* is wise and *what ideas* are wise. The back page of the brochure states that "There will be no hierarchy, no power but the power of wisdom, and confidence in the proposition that "Truth will prevail if not deprived of its normal weapons of investigation and debate"," but how does it work in practice? Does anyone reading this have any information about how the Wisdom Society actually operates?

In a letter in Noesis #92, Ron Hoeflin wrote:

I also wonder if "A. Palmer" should be on the list. Such a person attempted my Mega Test numerous times, each time altering his name and address slightly.

In a letter to me, Mr. Palmer cautioned me against confusing him with his uncle, Art Palmer, who is a member of several high-LQ. societies. This could be one reason for the "alterations" Ron mentioned.

I enjoyed Chris Langan's letter to Bob Hannon in #92. I sometimes feel that Chris' sarcasm is excessive, but sometimes I get a kick out of it; it reminds me of Mark Twain's tonguein-cheek critique of James Fennimore Cooper's prose style, in which Twain amusingly went into much more detail than necessary to demolish any possible claim that Cooper was a competent writer.

In Bob Dick's letter in #93, he wrote about his use of a "major tranquilizer" and an "antidepressant" every day. I don't know what it takes to tranquilize a major, but I can't let Bob's comments pass without adding a warning.

These drugs dull one's consciousness. I have known many people who have used them and, without exception, they were sleepwalking through life-even more so than is generally the case in Western society, in which people are lost in dreams of material wealth, comfort, and ego-inflation. In my opinion, the use of these medications by the psychiatric "profession" is nothing short of criminal.

No matter what your condition, these drugs are a cure worse than the disease. To live is to be awake, and we're not very good at it; anything that makes you less awake diminishes your life.

I was interested in Chris Harding's remarks, in his essay, "What Is Intelligence?" (in #94), regarding the programming function of mind. Those who are interested in a more detailed examination of these concepts may be interested in my small book, *Analtyical Tracking*, Part I, available for \$10 postpaid from Polymath Systems at the above address.

On the third page of this essay, Chris wrote:

Ultimately, our limits to mental development show up as increasing selfawareness, it is an end process by which an increasing level of self-ordering (data compression and the like) have [sic] been maximised and beyond which point no gain can take place.

The chaotic thought processes exhibited in this essay and, to an even greater extent, in his other writings published here and elsewhere suggest that if there are limits to mental development Chris is not in a position to know what they are.

On the fourth page, Chris wrote:

However we may see things it may be said that mind is or becomes a process of accumulated view points [sic] that are unaware of their respective positions.

The idea that the psyche is not unified, but consists instead of many small "I's" ignorant of one another, each of which takes itself for the whole, is one of the principal points of the teaching on man's condition and possibilities brought to the West by G.I. Gurdjieff in the early years of this century. For information about this and other ideas of Gurdjieff, I recommend *In* Search of the Miraculous, by P.D. Ouspensky (I reproduced a passage from this book in my "Reply to Jerry Bails on Understanding Ouselves" in Noesis #73).

Another view of this same idea, couched in language derived from cognitive science but translated into something more closely resembling ordinary English, appears in *The Society of Mind*, by Marvin Minsky (which I mentioned in the same essay). Minsky is generally recognized as one of the founders of the new science of artificial intelligence. I have met him on several occasions at NASA's planetary encounter events and have talked with him at length on many subjects. I appreciated his willingness to forget about academic credentials and shift into the high gear appropriate to conversation among intellectual peers at a very high level. He would not be at a disadvantage in the Mega Society.

In his letter in #94, Chris Langan expressed his discouragement that readers of *Noesis* do not appreciate his CTMU. I have read the issues in which Chris discussed his theory, but I have not seem a concise summary of the theory itself without irrelevant context. Chris, I believe that you will get responses to your ideas if you prepare a readable summary of the principal points of your theory. To put it very succinctly: outline the overall structure, write it up in sections and subsections corresponding to the main points of your outline (with a table of contents, an index, and cross-references), and translate it into English.

Also in this letter, Chris wrote:

I cannot continue to publish in *Noesis* if my contributions have to share space with material whose absurdity degrades not only the publication itself, but all who read and write for it.

Despite the fact that some readers may have their doubts about the importance of Chris' contributions, this is a very serious consideration. We aren't likely to get much good material from potential contributors to *Noesis* without higher editorial standards. (Though the jury's still out, for me, with regard to the CTMU, I am not among those who do not appreciate Chris Langan's contributions to *Noesis*.)

Mike Price's "Frequenty Asked Questions About the Many-Worlds or Relative-State Formulation of Quantum Mechanics," filling the entirety of *Noesis* #96, is at least a partial exception to my remarks above about technical material in *Noesis*; Despite some weird symbolism reminiscent of C code toward the end, Mike has taken considerable trouble to explain some difficult ideas in non-technical terms.

I was interested in Ron Yannone's "Colon Health Test and Self Analysis" in #97. The answer to question #1 was: "Most colon authorities agree we should have one bowel movement for each meal. Anything less is constipation." This corresponds to my experience; when I first read that the average person has one bowel movement a day, I thought it was a misprint-but it's been established by many studies. We live in a constipated society.

However, it is also my experience that proponents of colonic irrigation tend to be "true believers" and to lack a sense of proportion. Ron's statement that "Constipation is the cause of most of our human ills" bears this out. There is no doubt in my mind that there are more serious problems to which we are heir as part of our human condition, particularly the substitution of mechanical habits for conscious experience and action, fragmentation of the psyche (mentioned above), and self-delusion and ignorance of one's real nature.

Colonic irrigation is a controversial procedure; many doctors feel that the risks outweigh the benefits or even that colonic irrigation is of no benefit at all.. I regard it as irresponsible to present only the positive side. The controversy should be mentioned so that others can make up their minds about this in possession of all the evidence.

One reason that people are so frequently constipated is that most people have very little connection with the sensation of their bodies; a consequence of this is that people don't know when they have to go and carry around a load of urine or feces for hours longer than they should. Also, people are often too busy or too lazy to get up and take a pee or a crap; I notice that sometimes I get into a "busy" state when I'm working on something, in which I'm very resistant to bothering to tear myself away from my obsessive business to answer the call of nature. Another factor is that elimination is painful for some people and they tend to put it off.

Also in #97, in an essay entitled "The Eternal," Ron wrote:

...astronauts and space scientists at Green Belt, Maryland...were trying to determine the position of the sun, moon, and planets 100 and 1000 years from now. In order to do this, they had to plot the orbits through past centuries.

They ran the computer measurement back and forth over the centuries and suddenly it came to a halt. The computer signaled that there was something wrong either with the information fed into it, or with the results compared with the standards. They called in the science department to check it out and found nothing technically wrong. The computer still came up with the same discrepancy, a day was missing in elapse [sic] time. The scientists were dumbfounded. There was no answer.

Then one of the team remembered a reference to the sun standing still in the Bible.

Ron went on to explain the discrepancy in the calculation by events recounted in two biblical passages.

There are a number of things left out in this story. There are no references to sources which could be used to verify the assertions made by Yannone and no exploration of alternative explanations-e.g., that whatever ancient measurements were used to check the calculations might not have been completely accurate or that there might have been bugs in the program.

(One of the consequences of chaos theory is that it is not possible, in principle, to accurately predict the state of certain types of systems, of which planetary motions are an example, over long periods, though for the larger bodies of the solar system it should be possible to be quite accurate over a period as short as a thousand years.)

Without an explicit analysis of factors such as these, this isn't science, it's special pleading for a particular religious point of view not even shared by the majority of Christians. This is an example of the type of material that does not belong in *Noesis*.

But Yannone doesn't stop there. Another article in the same issue-"When God Speaks Things Happen!"-contains a number of howlers; I mention only a few of them below.

Ron wrote, "The [earth's] EM field loses half its strength every 1400 years." This is total nonsense. While there are sizable fluctuations in the field, both the magnitude and frequency of these fluctuations are highly irregular, as are reversals of the field (the latest reversal was over a million years ago, but it is known that the earth has reversed north and south magnetic poles many times in its history). The dynamics of the earth's liquid core and the complex heat economy of our geologically active planet are clearly involved in generating the field, but the exact mechanism driving field fluctuations is not yet clear.

The next paragraph begins: "Cosmic Dust Accumulation on the Moon-The moon is bombarded with cosmic dust particles." Stop right there! Lunar dust does not come primarily from "cosmic dust particles" but from the pulverization of lunar rocks and of the incoming bodies when the moon is impacted by good-sized chunks of material-and its cratered surface provides plenty of evidence for such impacts. It is true that there was considerable controversy among scientists as to the probable depth of the lunar dust before Apollo 11, but this in no way supports Ron's contention that the moon's surface must be very young, and it would be damned hard to explain the cratering if the moon were only a few thousand years old.

The following paragraph contains this statement:

The photographs of the "Saturn flyby" [Ron doesn't bother to specify whether he's talking about the flyby of Pioneer 11, Voyager 1, or Voyager 2, all of which I covered as a member of the press] reveal two important features of Saturn's rings: (a) small and large chunks in the rings. This indicates only a few thousand years for creation. If it were over ten thousand years, there would be a homogeneity in the rings, (b) the rings are braided and inter-twined [sic]-which shows design.

First of all, not one of the photographs taken by the three spacecraft which flew by Saturn shows any chunks, large or small; the rings appear as arcs of light. Data was obtained by spacecraft instruments which indicated a distribution of particle sizes in the rings, including inferences from photos of the rings taken inside and outside Saturn's orbit that provided data on the relative amount of forward and backward scattering of light, which gave indications about the relative contribution of microscopic particles with sizes close to the wavelength of light and of larger objects.

While it's no surprise that natural objects should come in more than one size, it is true that collisions of ring particles tend to reduce the average size of the particles and that, over time, particles tend to escape from the rings, either outward into interplanetary space or inward toward the planet. Current theory holds that the rings are continuously replenished by collisions among small bodies-moonlets and incoming asteroids and comets. Nothing here provides a shred of evidence for a "young" universe.

As for the "braiding" of Saturn's F ring, this is a puzzle to scientists; there are a number of theories, but none of them is completely satisfactory. This hardly argues for design, any more than a rainbow provided evidence of design before science discovered what caused it.

"Creation science" is an oxymoron. And Ron Yannone makes Robert Hannon look rational.

Celia Manolesco's letter in #98 in defense of Robert Hannon is touching, in a way, but it's also kind of nervy. Many Mega members are fed up with Mr. Hannon's claims that everybody is wrong but him. It's none of Ms. Manolesco's business what we print or don't print in our journal and we certainly have a right to debate the pros and cons of printing Mr. Hannon's stuff once the issue is raised.

I do agree that it's unfortunate when the objections to Mr. Hannon's material get too personal. I don't know about anyone else, but I bear no ill will toward Mr. Hannon, despite the fact that I think he's wrong about a lot of things. As for questioning his sanity, I think we're all a little crazy and I don't believe that it's a mortal insult to point out a man's blind spots.

I also agree with Ms. Manolesco that Chris Langan's proposal to prohibit publication of nonmembers' writings unless they're sponsored by a member is not a good idea, but I sympathize with Chris' frustration with the ongoing problem posed by Mr. Hannon's prolific output of material at a level of quality significantly below the standard, such as it is, of this journal.

Ms. Manolesco's objection to "figuring out what the probabilities are of ants at the vertices of a tetrahedron, a cube, an octahedron, a dodecahedron and an icosahedron, encountering or not encountering one another" is misplaced. It shouldn't come as a surprise to anyone who thinks about it that those who are capable of performing well enough on such problems to get into the Mega Society should be more interested in them than those who are not-and, again, it's none of her business what we choose to publish.

Her comparison of Mr. Hannon's scientifically unorthodox views on light with those of "the Kabbalists" and Wilhelm Reich doesn't do Mr. Hannon a favor.

It's hard to hear someone you care about labeled as a crackpot, but people who reach that conclusion about Mr. Hannon have as much right to have and express their opinions as Mr. Hannon does.

I agree with Ms. Manolesco that Mr. Hannon has a right to express himself. I do not agree that he has a right to ramble on in the journal of the Mega Society, of which he is not a member.

Ms. Manolesco wrote:

I think that Robert Hannon is a very courageous and long-suffering person when he has to put up with the type of diatribe that people like Chris Langan expose him to.

What are Chris Langan's qualifications anyway? What degrees does he have? What great contributions has he made to society recently? I would like to know.

At least Robert Hannon is creative enough to think for himself.

Why doesn't Chris Langan take a trip on a rocketship to some distant planet and simultaneously send pictures of it back to earth, and explode a huge bomb on the planet's surface? What will we see first, his transmissions of pictures on our computer screens, or the actual explosion of the bomb on the planet?

Perhaps this simple experiment will settle some of these questions.

Tsk, tsk! Such violence! Ms. Manolesco has forfeited her claim to the moral high ground. This kind of personal attack in the context of defending her friend Mr. Hannon is nothing short of hypocrisy.

It's a popular tactic to attack the critic instead of responding to the criticism, but Chris Langan's qualifications or lack thereof are irrelevant. A proposition is either true or not, irrespective of who advocates it. There are no end of idiots with Ph.D.'s. One of the principal reasons for the existence of Mega and the other high-I.Q. societies is to provide a level playing field where academic credentials are irrelevant.

I got a kick out of the excerpt from Fake ID, by Rick Rosner, printed in Noesis #99, though parts of it are a little raunchy. If the rest of it is as funny as what was printed here, it could

be a best-seller. But I also agree with Chris Langan's point in #100 that it makes sense to give some thought to Mega's image and try to present a more dignified face to the world. (When my wife, Virginia, proofread this paragraph, she wrote "It's too late!" in the margin.)

In his letter in #100, Chris Langan wrote:

I'd like to propose a solution to the five-year-old problem of who wins and who loses in the Mega Society Sweepstakes. We all know IQ is only part of the package we call "intelligence." *Real* genius is measured by the ability to solve big, important real-world problems...for instance, a mo-mentous, high-profile, hyperdifficult mathematical conjecture of my choosing. [Ellipsis Langan's.]

While I agree strongly that there's a lot more to intelligence than what's measured by I.Q. tests, and that the real measure of genius is the development of important new paradigms, mathematics is not the only important field of intellectual endeavor and not all Mega members have an equal depth of mathematical background. And the idea that *Chris* should choose the problem to be used as a measure of his intellectual provess versus all corners is ridiculous. How do we know he won't choose one he's already solved?

Let me propose a simpler test: whoever becomes world-famous for his seminal work in any field of science, mathematics, scholarship, or the creative arts "wins."

Chris wrote:

For the last few months, an eminent mathematician-in fact, one of the most famous in recent times-has been in possession of a paper in which I prove four important, previously unproven mathematical conjectures. This luminary kindly agreed to give me a fair shake, and he promised it in writing. I insisted on this because, unlike professional mathematicians, I lack professional recourse in the event of a false claim of priority (i.e., theft). Although such concessions are rare within the academic system, I'm plainly not a member of that system. In fact, my personal academic experiences have given me neither credentials, nor any expectation of fairness from random academics. So I must insist on full confidentiality until I possess written verification from somebody within the system... a solid testament of priority to protect me from misfortune in the course of "peer review."

This is paranoid thinking. If Chris doesn't want his stuff ripped off, there's a very simple preventative measure: publishing it somewhere, anywhere, to document his claim of priority. Whether Mega members appreciate Chris' paper or not, nobody can deny the date of publication of an issue of *Noesis*. Keeping work secret is a common practice in academia-but the reason is almost invariably that it isn't finished yet or that the author isn't sure his work lacks a fatal flaw (academics are afraid to be proven wrong, though many of the greatest of them, like Stephen Hawking, have no such fear and readily admit their mistakes).

Also, while it would be nice to be recognized by one's contemporaries and justly compensated for one's contributions to human knowledge, that's far less important than the contributions themselves. This reminds me of one of my aphorisms: Do what you love and the money will come-after you die.

In a letter in #100, Robert Dick wrote, "As Rush Limbaugh puts it, I am in relentless pursuit of the truth." And when he catches it, he's gonna beat the hell out of it!

In his essay, "Work in Progress: Who Was Barabas?"-also in #100-Robert wrote:

The Shroud [of Turin] was carbon-14 dated by three independent laboratories and found to have been made in the 13th or 14th century.

Counter: There is a recent book, which I have a copy of, which shows that the carbon-14 dating was a hoax. The investigative reporter who wrote the first half of the book did extensive and intensive detective work. One of the surviving pieces of the material used for dating (the rest destroyed in the dating process itself) was compared by computer-aided photography to a known close-up photo of the weave of the Shroud. The weaves are superficially similar, but the two fabrics are obviously entirely different.

Then the question arises: why the hoax? Answer: Because if the Shroud proves Jesus did NOT die on the cross the most basic dogmas of the Christian religion will be overturned.

I'm somewhat familiar with the controversy surrounding the Shroud of Turin. I find it hard to believe that the carbon-14 dating is a hoax. (If it is, the material was switched, because there is definitely a small amount of material missing from the Shroud.)

But even if the Shroud were dated to the first century A.D., it would in no way prove that Jesus did not die on the cross-or even that the man whose image appears on the Shroud was Jesus.

The Shroud presents a genuine enigma. The image on the cloth is not just a two-dimensional representation of a human body; it corresponds very closely to the pattern that would remain from three-dimensional wrapping of a man's body. Nobody has found a satisfactory explanation for the transfer of the image of the body to the cloth. And the technical expertise to fake something like this didn't exist in the 13th or 14th century.

REVIEW OF THE BELL CURVE

Kevin Langdon P.O. Box 795, Berkeley, CA 94701

A recent book, *The Bell Curve*, by the late, eminent Harvard psychologist and psychometrician Richard Herrnstein and Charles Murray, an American Enterprise Institute fellow, has stirred up a storm of controversy. Members of the Mega Society cannot help but be interested in the ongoing debate about intelligence, intelligence testing, and the heritability of mental ability, which has been much in the public eye lately due to the appearance of this book.

The research reported in *The Bell Curve* is standard stuff in the field of intelligence testing. The "controversy" reported in the media is largely a matter of attacks from outside the field-usually by people who lack the statistical background to understand what they're criticizing.

The following are excerpts from the introduction to The Bell Curve:

For the public observing the uproar in the academy from the sidelines, the capstone of the assault on the integrity of the discipline occurred in 1981 when Harvard paleobiologist Stephen Jay Gould, author of several popular books on biology, published *The Mismeasure of Man.* Gould examined the history of intelligence testing, found that it was peopled by charlatans, racists, and self-deluded fools, and concluded that "determinist arguments for ranking people according to a single scale of intelligence, no matter how numerically sophisticated, have recorded little more than social prejudice." *The Mismeasure of Man* became a best-seller and won the National Book Critics Circle Award.

Here are six conclusions regarding tests of cognitive ability, drawn from the classical tradition, that are by now beyond significant technical dispute:

- 1. There is such a thing as a general factor of cognitive ability on which human beings differ.
- 2. All standardized tests of academic aptitude or achievement measure this general factor to some degree, but IQ tests expressly designed for that purpose measure it most accurately.
- 3. IQ scores match, to a first degree, whatever it is that people mean when they use the word intelligent or smart in ordinary language.
- 4. IQ scores are stable, although not perfectly so, over much of a person's life.
- 5. Properly administered IQ tests are not demonstrably biased against social, economic, ethnic, or racial groups.
- 6. Cognitive ability is substantially heritable, apparently no less than 40 percent and no more than 80 percent.

Having said this, however, we are left with a dilemma. The received wisdom in the media is roughly 180 degrees opposite from each of the six points.

The hottest point of contention has to do with the relationship between race and intelligence. The November issue of Discover contains several articles that attempt to explain away the race concept entirely, so uncomfortable are the authors (and apparently also the editors of Discover) with the idea that there are significant respects in which all men are not created equal. Actually, the highly significant differences among the races on mental ability tests provide one of the strongest arguments for fundamental divergence of populations.

There is a significant difference between blacks and whites in mean intelligence-a little more than one standard deviation for the U.S. population. It is firmly established that something like 70 percent of the observed variation in performance on I.Q. tests is due to heredity. The Bell Curve actually understates the strength of the evidence here.

This information comes as a shock to many people, and the degree to which they are shocked shows the unconscious charge surrounding racial issues in our society. We've become desensitized to dirty words, but there's still one genuinely taboo word, the "dirtiest" word in the English language; "nigger."

As much as they'd like to feel that they're beyond racial stereotyping, there is a pervasive fear of black violence-based on the stereotype of the black man as brute-in most of the white population, leading to propitiatory behavior toward blacks, including deference in language usage (like the deference to feminists of those who meticulously edit themselves for "sexist" language, though in this case, it's not violence but the concentrated wrath and scathing tongues of women that's feared).

The stereotype reflects a statistical reality and evokes an instinctive reaction. This is just one example of the widespread fears about one another entertained by social groups and individual people; these fears give rise to many unconscious biases.

An impartial observer from another planet would not be surprised to learn that evolution has resulted in variation among human subpopulations in intelligence, as this is the case with all other measurable variables, such as height, weight, body proportions, athletic ability, etc.

The Bell Curve contains not only a body of psychometric data and inferences but also an analysis of what the authors refer to as the rise of a low-I.Q. "cognitive underclass," disproportionately non-white, low-income, violence-prone, and with a high birth rate. Hermstein

and Murray estimated that the mean I.Q. of incarcerated offenders is about ten points below the general population mean. They went on to explore the policy implications of the rapid growth of the cognitive underclass.

Much of the criticism of this book has confused the policy ideas put forward here with those of the right-wing nuts who want to abolish welfare without giving a thought to how to dispose of the corpse; this is the same kind of gut-level, do-it-and-shove-the-consequences attitude that the Right rightly objected to when the Left set up all the entitlement programs that are now bankrupting America, without figuring out how to pay for them.

I don't buy into the hand-wringing notion that society owes every bum who doesn't want to work a living. I support the "workfare" concept; I think we can find something that any ablebodied person on public assistance can do to defray, wholly or partially, the cost of society's investment in him (late-term pregnant women and new mothers can be considered temporarily nonable-bodied).

This is one side of the issue, but if we just cut people loose, without establishing the sort of retraining and other social support programs the proponents of welfare abolition want to eliminate, this cannot help but lead to an increase in crime (especially violent and predatory offenses) and emergency room visits, and to nutritional and other necessities-of-life deficiencies for innocent children of welfare recipients.

But Hermstein and Murray are not "let 'em starve" Neanderthals. Here are their main conclusions on policy, from the last chapter of The Bell Curve:

As America enters the twenty-first century, it is inconceivable that it will return to a laissez-faire system regarding income. Some sort of redistribution is here to stay. The question is how to redistribute in ways that increase the chances for people at the bottom of society to take control of their lives, to be engaged meaningfully in their communities, and to find valued places for themselves. Cash supplements need not compete with that goal, whereas the social welfare system that the nation has developed in the twentieth century most definitely does. We should be looking for ways to replace the latter with the former.

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We can imagine no recommendation for using the government to manipulate fertility that does not have dangers. But this highlights the problem: The United States already has policies that inadvertently social-engineer who has babies, and it is encouraging the wrong women. If the United States did as much to encourage high-IQ women to have babies as it now does to encourage low-IQ women, it would rightly be described as engaging in aggressive manipulation of fertility. The technically precise description of America's fertility policy is that it subsidizes births among poor women, who are also disproportionately at the low end of the intelligence distribution. We urge generally that these policies, represented by the extensive network of cash and services for low-income women who have babies, be ended. The government should stop subsidizing births to anyone, rich or poor.

The authors have identified some important and generally overlooked social policy issues, but it's easier to diagnose the disease than to prescribe a cure that will actually work.

For example, they call for replacement of existing social welfare programs with income supplementation, without addressing the reason that many programs were established on a noncash basis in the first place: the epidemic of alcohol and drug abuse, gambling, and other forms of

irresponsible, addictive behavior, particularly among those at the low end of the cognitive and economic spectrum.

I consider it unfortunate that Hermstein and Murray chose to juxtapose the psychometric and social-policy aspects of their work. It seems inevitable that this will increase the public misconception that the basic psychometric propositions are controversial, in the scientific sense of the term.

Nonetheless, *The Bell Curve* represents a substantial contribution to public awareness of important issues. The wealth of statistical data contained in this book makes it essential reading for members of the Mega Society.

PLASTIC SURGERY REPORT by Rick Rosner

I've had plastic surgery eleven times, and I'm still not beautiful. L.A. is the world's cosmetic surgery capital. Half a dozen hair transplant specialists advertise in the sports pages of the L.A. Times, along with a couple penis augmentation experts. (They liposuction fat from your butt and inject it in your dingle.)

West coast surgery is higher quality than work done on the east coast. You see fewer horribly obvious results.

I saw my first plastic surgeon at 16. He stitched up my brow after I borrowed my baby-sitter's car and drove it into a tree. The following year, I was gonna have him do a chin job, where he scalpels a slit behind your lower lip (where the chewing tobacco goes) and shoves a piece of silicone down onto the front of your jawbone. But my mom found out and told him not to do it. It would been a deal, only \$300. Now it would cost over \$1000, but I've grown a beard instead.

The first actual beautification work I had done was by a cosmetologist in Kissimmee, Florida. For \$100, she tattooed a few specks of permanent liner onto the corners of my eyes. My hairline was eroding, and I figured people should look at my eyes instead of my scalp.

Next, I got a free nosejob. For years I'd taunted bar customers, hoping one would give me a free nosejob via a fist, but drunks have lousy aim. Instead, I discovered that medical schools need practice noses, like barber colleges offer cheap haircuts. NYU waived the \$1100 surgical fee, and by some fluke my insurance picked up the \$1100 operating room fee. The whole thing cost \$60 for before and after photos, and I got two surgeons, the intern or resident or whatever he was and his teacher. I was awake; they went up my nose with a chisel. They did a nice job. I recently made some calls and found out that many medical schools offer the whole range of cosmetic surgery for about one third what they'd cost retail.

I've had nine hair transplants, for a total of 522 plugs. If I could afford it, I'd get at least another 300. What happens is, the doctor either drills a bunch of 4mm cylinders of flesh out of the back of your scalp at the neckline or slices a 10mm by 3 to 5 inch slab out of the back of your neck. He stabs a bunch of holes in the front of your head. He cuts the skin excised from the back of your scalp into 2mm pieces, and his nurse assistants stuff the pieces into the holes in the front of your head. After three months, the pieces sprout supposedly-permanent hair.

Since this is elective surgery, the doctor and his assistants are extremely kiss-ass. They're cheerful and complimentary. They give you free fruit juice and show the video of your choice while they work on your head.

Hair transplant doctors are generally not surgeons. Many are dermatologists; my latest guy is a guy who used to work emergency rooms. I asked him whether z-plasty might help split up bald spots, and he never got back to me. Maybe he doesn't know what z-plasty is.

Doctors who prefer taking a strip of flesh to drilling scalp cores close the rectangular wound by collapsing it into a parallelogram of zero height, like a flattened box. So, until your skin stretches, your head is sewed on rotated by a half inch.

Each little plug costs 10 to 20 bucks. Transplant guys used to put in full 4mm plugs. These looked ridiculous, earning various names--"The Barbie Effect," "Toothbrush," "Orchard Effect." Then doctors discovered they could cut each 4mm plug into two to four pieces. These are less obvious, and they make more money for the doctors. Each 20-dollar plug has been sliced into several 20-dollar plugs.

Lots of celebs have 'em--Hugh Downs, Steven Segal, Joe Biden, Arnold Schwarzenegger, Michael Keaton, Clint Eastwood, Ted Danson, Mother Teresa. Expect to see Mel Gibson with them soon. They look better on TV than in person.

If you don't buy enough or if you don't keep putting them in as your hair creeps back, you get what a friend of mine calls the "line of doom," one or two rows of scraggly plugs surrounded by lots of shiny hairless skin, as if the front of your head has been machine-gunned with hair tufts.

My plugs are fair, better-looking than some, not as good as the most complete jobs. I still have some of my own hair. I try not to go out in strong light.

The night after my eighth transplant, I took off the polo shirt I was wearing and knocked out one of the new plugs. I got on my hands and knees and searched the apartment, 'cause hey that's ten bucks. After twenty minutes I found it, rinsed it in hydrogen peroxide, gripped it firmly with tweezers to shove it back in my scalp. I was six inches from the mirror with tweezers a couple mm from insertion when I noticed that the plug was actually a caraway seed from a piece of bread.