

Noesis

The Journal of the Mega Society Number 70 June 1992

EDITORIAL

Rick Rosner

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Under our new format, we can handle many different forms of graphics. Chris Cole says there is no problem with sending material to be reproduced directly by the printer. (This assumes that the material to be reproduced is crisp and in black and white.) Also, I can use the graphics built into Microsoft Word to do simple diagrams and such, but my skills are very rudimentary.

I'm no longer tied into a computer email system. To send me email, you must send email to Chris Cole, who will then send me a hard copy. So you might as well send me a hard copy in the first place. You can send material for publication to Chris through email. You can also send disks containing material to me or Chris. I have 3.5" and 5.25" drives and Microsoft Windows version 3.1, but am pretty inept. Chris has every system imaginable and is very ept. **So send us stuff.**

Thanks to all of you who sent in membership/subscription payments. I hope we've cleared up all past transactions, so the number next to your name is now accurate. If the number is still wrong, let me know. While we're talking about dues—I'm planning on raising the per copy price of Noesis to \$2.00 as of January, 1993. (This is a 20% increase from the current price of \$1.67 per copy. Let me know if this acceptable or not.) I also promise not to raise rates more than once every 18 months while I'm editor.

LETTER FROM WILLIAM J. SHARP

Remember that drawing I sent you with some obscure mumblings about it having one or two secrets? I'm pretty sure your computer set-up can't handle the printing of the drawing, so make some photo-copies and paste them in the issues, like that last mass post card.

Multiple thanks,

Wm. J. Sharp

P.S. Is Encino far from South Central L.A.?

[Editor's comments: I can now handle graphics, though not with expertise. Your drawing will be included in the next issue. Encino is the bourgeois opposite of South Central and is about 15 miles from the center of the rioting. Little happened to us here. The sun continued to shine, the National Guard drove by in their Hum Vees, and we remained oblivious. Like many residents, I remain vaguely uneasy, unsure about who to blame, languidly, pleasantly befuddled, and perhaps deserving the wrath of some higher force.]

ABOUT THE SHORT FORM TEST
by the Editor, with questions from
JEFFREY WRIGHT AND MARSHALL FOX

In the Jan./Feb. issue, seven problems were submitted to readers as part of a proposed short, high-ceiling test. In addition, some number series puzzles based on the periodic table appeared in the May issue. Many readers have submitted their solutions. If you want to submit your solutions, get them to me by early July. Answers to all of these problems will appear in the July issue.

Dean Inada's contribution to the seven original problems asked readers to find a shortest path out of a forest to a hidden linear road no more than a mile away where the direction to the road is not known. In a letter appearing below, Ron Hoeflin says he finds this problem intriguing, but only if it doesn't involve calculus. Spurred on by Ron's letter, I decided to see what the solution *did* involve. After much struggle, I found that calculus wasn't necessary. I also found many attractive traps on the way to the right answer—answers that appear to be correct and elegant but are really a step or two away from the best possible answer.

Chris Cole mentioned that no one has ever found the answer to the three dimensional version of Dean's problem, which would be posed as follows: Your space cruiser is lost within a mile of a force field that is planar and unlimited in extent but invisible. What is the shortest possible path that will guarantee contact with the force field? I messed with the 3-D version for a few days. It seems to require more heavy-duty math than the 2-D version. I think I have the basic shape of the shortest path, but not its exact configuration. Can anyone find a 3-D path that is shorter than about 1 1 and 3/4 miles? I'll show my best attempt and give the answers to this issue's new problems in the August issue.

The next installment of trial problems for the short form test (see below) includes my (somewhat arbitrary and not so elegant) find-the-next-figure-in-the-series problem. Hint: it helps to be familiar with *Mad* magazine.

THE FAR SIDE

FROM JEFF WRIGHT—

Here is a suggestion for the shortened Mega test: [see below]

P.S. I thought you might appreciate this cartoon.



FROM MARSHALL FOX—

Here's a nifty problem for the test: [see below].

**SEVEN SHORT LETTERS FROM RON HOEFLIN
INCLUDING TRIAL TEST SIX**

Dear Rick,

I just received *Noesis* #67 and 68. I enclose a letter which I'd appreciate your forwarding to Jane V. Clifton in response to her letter in issue #67. Do you have any objection to publishing every contributor's address along with his or her name to facilitate communication? [Done in issue 69. Ed.]

I notice you refer Ms. Clifton to fellow Canadian Hughes Gervais as a fellow Mega member, but my impression is that Mr. Gervais is only a non-member subscriber. Perhaps it would be worth considering dropping non-member subscribers from the mailing list entirely to avoid this sort of confusion. [I prefer the confusion to the dropping of subscribers. Ed.]

Along the same lines, Ellen Graham, when interviewing me for her article about the Mega Society in the *Wall Street Journal*, asked me to confirm that the Mega Society has 50 members. This led me to suspect that you gave her that erroneous information (or else Chris Cole or Jeff Ward did) based on a failure to take note of the fact that 20 or 25 people on the mailing list are not members but only non-member subscribers.

[I discussed the difference between members and subscribers with Ms. Graham and told her that there are 30 to 35 members and 12 to 15 subscribers. She indicated that noting the difference would add unnecessary detail to an already complicated article. I said "OK." At that time, I hadn't systematically examined back issues, etc. to see exactly who are members. I've since done so but remain reluctant to run separate lists of members and subscribers, largely because some of the most interesting and active contributors are subscribers. Perhaps this is disingenuous. What does everyone think? Ed.]

If dropping non-member subscribers entailed dropping me, too, from the mailing list, I would accept that outcome. [As I've indicated, I don't want to drop anyone, least of all people like you who provide much of our content. Ed.]

Regarding Robert Dick's negative assessment of the Mega Test in issue 67, page 8, I am not aware that any of the Mega Test number series are "arbitrary and obscure." I suspect he simply hit upon an erroneous answer. Chris Cole informed me that a person who scored at the mega level on the Mega Test and used the pseudonym "Ron Lee" recently met him and turned out to be a noted mathematician who was one of the first to work out and utilize a successful system for winning at blackjack. I looked up "Ron Lee's" answer sheet and found he had a perfect score on the non-verbal part of the test: 24 right out of 24. I don't see how my number series can truly be so trashy if a noted mathematician like this can crack every one of them successfully, not to mention all the other non-verbal problems. As for the verbal problems, Richard May got all 24 right and he says in issue 68, pp. 5-6 that "I agree with Chris Cole that Ron Hoeflin's tests are the best high-level psychometric instruments yet developed."

In any case, if you need my help in differentiating between Mega members and non-member subscribers, I believe I still have this information so far as the Noetic group is concerned.

Enclosed is a copy of my Trial Test 6. Only one member of the Top One Percent Society has submitted a full set of answers to it so far, so it may be unduly difficult for that group, or perhaps the problems are simply not interesting enough. Feel free to use the ten problems in *Noesis*, although I doubt if they are tough enough to pose a really serious challenge for most Mega members.

Ron H.

Dear Rick:

In response to Jane Clifton's letter in issue 67, the chief impetus behind my founding the Mega Society was curiosity about what people at this level of ability are like qualitatively, i.e., what sort of impression do they make on me (or on one another). In particular, how similar or dissimilar are they to me. I've more or less satisfied my curiosity, so that my current interest in the Society is not intense.

Different sorts of tests will, of course, select different sorts of people, at least to some extent. But it's hard to imagine any test in which one would find the "disadvantaged minority" strongly represented. Maybe a test of basketball playing talent! Something like speed of brain wave response would probably be as close as one could come to a purely objective test of intelligence, but even this would have to be validated against what we normally and intuitively feel is intelligent behavior. And then the argument could always be made that even these biological tests do not get at "true" potential if the growth process has been stunted by drug-using pregnant mothers, etc.

So I think we have to discard the idea that intelligence tests can measure "potential" intelligence. They can only measure "actual" intelligence, which means intelligence that can be actively demonstrated in some way.

What do I think intelligence is? Well, the sort of intelligence I intuitively respect and seek out is the ability to devise worthwhile theories in science or math or the ability to put concepts together verbally the way a great philosopher or novelist might. Artistic and musical intelligence can also be measured, but that's hard to do in the ordinary pen and paper test and is better left to the specialist in these fields.

Now mathematics is one field in which one does not need expensive apparatus to compete. The geography of mathematical intellect centers mainly in white males, judging by actual mathematical achievements over the decades and centuries. The peak of mathematical talent in ancient Greece was accompanied by similar talent in almost every other intellectual field—art, philosophy, historiography, etc. There have been shifts in the geographical locus of talent, of course. If it's due mainly to cultural factors, so be it. Vietnamese children brought to the U.S. and reared here do quite well, on average, in intellectual subjects, as do other Orientals. Yet blacks who have had the same school teachers do not show the same prowess. This may be due in part to differences in parenting. But whatever the reason, we are stuck with the simple fact that blacks do not perform as well as whites or Orientals intellectually. This has nothing to do with "defective tests" because these intellectual differences are spread throughout all aspects of life—careers, avocations, etc. The tests are simply displaying the active intelligence that is or is not there. The tests do not deal with potential intelligence at all. The difference between an intelligence test and an achievement test is not that the former deals with what is potential and the latter with what is actual, but rather, that the former deals with what is general and the latter with what is particular. An achievement test measures active intelligence in a particular subject area, whereas intelligence tests measure active intelligence in a general way, i.e., over a wide range of subjects.

The problem about high-IQ societies' purpose is this: can people find much to say to one another—common goals, interests, etc.—if they merely share in common relatively high intelligence of a broad, general nature? For me, the chief value of such societies is that they enable people to discuss topics outside their area of expertise.

Perhaps a political liberal like Jane Clifton does indeed feel uncomfortable not having more “down-and-out” types to schmooze with—ghetto youths, etc. I personally don't have a strong craving to talk with such people, whose interests are unlikely to jibe with mine much. I like classical music, not jazz, for instance, and cosmology rather than the latest baseball scores. So let's just accept the “defect” that the Mega Society can't be all things to all people. Yet what it can offer—discussions of cosmology, philosophy, etc.—is perhaps not to be completely despised.

Sincerely,
Ron Hoeflin

[Ed's comments: As a Jane Cliftonesque liberal, I must voice at least token objection to any statements about racial divisions in intelligence. In nature vs. nurture, I come down solidly on the nurture side. I haven't seen evidence of large racial differences in the function of organs such as kidneys, liver, heart, lungs, and I believe that the brain is even less subject to racial differences in efficiency. The brain's complexity and precision make it unlikely that there is a large variation in efficiency across racial lines. In general, brains work pretty well or pretty badly, with large perturbations likely to be disastrous and with a tendency towards clustering at the dysfunctional end. I think there can be racial variations in specific areas of ability, but that overall, there aren't races of people with good brains and races with lousy brains. Racial differences seem to show up in characteristics which can be varied without affecting organisms' other characteristics and without affecting organisms' overall functionality, such as height, pigmentation, or facial features. Don't forget to take my comments with a grain of skepticism, since they're not in my area of expertise, my only area of expertise being harassment of the underaged.]

Dear Rick:

I wonder how Chris Cole plans to norm his proposed test? The test as planned, will yield very few responses even if Omni or some other publication publishes it, since most people will not submit answers to a test on which they can solve none of the problems. With only a handful of geniuses taking the test and doing well, we'll know they are bright but we won't have any clear idea how bright. How many problems would one have to get right to be at the one-in-a-million level, in particular? One right? Two? Three? After all, he wants each problem to be so difficult that only one Mega Test member can solve any given one of them. Another problem is that a short test does not discriminate as well as a longer test. You need a more gradual gradient of difficulty, which only a longer test—40 problems or so—can yield. The Cole project might make sense if the better problems proposed are tacked onto the ceiling of a more normal test like the Mega Test or the LAIT to give them a bit extra ceiling. Oddly enough, you don't really need any super difficult problems in order to achieve a super difficult test. The 3-interpenetrating-cubes problem in the Mega Test was about the most difficult problem in that test and it was solved by 87 of the first 3920 people who took that test, yet no one person out of 3920 managed to get a perfect score on the Mega Test as a whole. The 3-cube problem was solved by about 2.2% of the total set who tried the test but it was solved by about 61.5% of those who scored 43 or above—the mega level. So what you should aim for, if you want to have a test that discriminates well at the mega level, is more problems of about the same difficulty as the 3-cube problem, tacked onto a test with a lot of less difficult problems to entice people to give the test a try. So I'd say any problem that “only” 50% of Mega Society members can solve is tough enough. You might also consider having members rate the proposed problems by their intrinsic appeal—i.e., by how enticed one feels to try them just by looking at them. Of the 6 problems at the end of issue #67 of *Noesis*, I'd rate Dean Inada's problem as most enticing and the two number series as least enticing. But if Dean's problem requires higher mathematics to solve, then I'd discard it, where by “higher math” I mean calculus or beyond.

Ron

[Ed's comments: Chris is hoping that Ron Hoeflin could norm any test developed by Mega members, in return for some royalty. Perhaps Jane Clifton could also contribute her statistical ability. I'd like to see a "greatest hits" test, which combines the best of Ron's items with the best of ours. I agree with Ron that Dean's problem is the most insidiously demanding of consideration, though I don't know about the role of higher math in determining what problems be included.

I think there's an obnoxious bias towards calculus in higher education, which means that many students are denied significant exposure to non-calculus-based math such as combinatorics and probability, rendering these subjects effectively "higher math." My performance on Ron's tests was certainly aided by my own obnoxious bias against calculus and towards probability.

Ron—are there some recent stats on the Titan Test? At last word, about 400 people had taken it. Any newer results?]

Dear Rick:

I suspect that one reason we don't see *Noesis* more often is that you take the trouble to retype everything. This is a formula for rapid burnout of the editor, in my view, unless you simply enjoy typing. The fact that you were unwilling to retype the bibliographical notes at the end of my two essays in issues 67 and 68 suggests that you do not. When I publish my own journal, *In-Genius*, I probably retype less than ten percent of the submitted material, and this makes the job such a small strain that I easily put out two issues per month. Of course, I do have the added incentive that I earn a living this way, whereas you have no such incentive.

Ron

[Ed---I've been under the misconception that the publication of *Noesis* is entirely computer-mediated—if it doesn't come out of a computer, it doesn't get in. However, I recently found out that Chris takes the material to a printer, just like a normal person. So send in your camera-ready stuff, and we'll print it that way, unless it's really easy for me to type. If it comes off of a dot-matrix printer, I still must retype it.]

Dear Rick:

In answer to your question in *Noesis* 67, page 18, "It seems to me that Ron is attempting a Grand Unified Theory of philosophy. Is that an accurate interpretation?": I used to use just that terminology, but I now use the somewhat less grandiose term "paradigm" to describe what I'm doing. I'm offering a comprehensive paradigm of philosophy that should enable the subject to move forward without so much pointless squabbling about different perspectives, each of which is legitimate.

It reminds me of Jane Clifton's liberal ideology. Many political ideologies are legitimate when stated intelligently. They simply emphasize different values. Diverse values need not be mutually contradictory if they can be integrated into a harmonious system, just as a healthy body harmonizes the disparate need of its various tissues and organs. My impression, perhaps oversimplifying matters a bit, is that liberal ideologues tend to push for "immediate gratifications"—spending on welfare programs, etc.—while conservative ideologues push for longer-range goals—military preparedness: not overtaxing people, especially business, so as not to stifle the future growth of the economy, which will benefit everyone in the long run; etc. I don't see anything shameful about either ideology except when it completely loses sight of the opposite end of the spectrum. It amuses me that in the U.S. only after a dozen years of federal deficits of truly monstrous dimensions did the Democrats finally realize that running huge deficits year after year, however expedient from the standpoint of immediate gratification of the masses, is totally ruinous as a long-range economic policy. Far from considering Reagan a conservative, I consider him

in this vital respect an unreconstructed who-gives-a-damn-about-deficits **liberal!** Had I been in Reagan's shoes, I'd have at least **proposed** balanced budgets every year, and I'd have followed through by vetoing Congressional spending measures that would bust these budgets. At least then no one could have made the absurd claim that these were "Hoefflin" deficits, whereas the Democrats get away with calling the deficits they helped generate in the Reagan years "Reagan" deficits!

As for the abortion issue, in line with my tendency toward **conservatism** I am pro-choice because I believe too many new children would have disastrous long-range consequences. I think it's just an aberration that the pro-choice position got adopted by liberals. It would only be a liberal position if its consequence was that every couple had as many children as possible, thereby neglecting the disastrous long-range consequences of a population explosion. But as it is, pro-choice seems to have salutary long-range consequences on the whole and hence, by my definition is a conservative position.

As for older people becoming more liberal, by my definition the opposite should happen. Since older people have less life in front of them, they should tend to push for more immediate gratifications such as Social Security and Medicare spending, even if this beggars the younger generation. This is in fact just what we see happening, at least here in the U.S.

Ron

Dear Rick:

Regarding the question, "If you're so smart, why aren't you rich?" Oscar Wilde had a snappy answer: "Genius is born, not paid."

Regarding Jane Clifton's variation on that question, "If you're so smart, why haven't you found a cure for cancer?" the answer to that is fairly clear. There are many scientific problems that can only be solved by many people working in collaboration, often over the span of decades or even centuries. Asking why one gifted person hasn't found a cure for cancer would be about like asking why Neil Armstrong didn't hammer together a moon rocket in his back yard and fly to the moon single-handedly!

But shouldn't people at the one-in-a-million level of ability at least be famous or semi-famous? Well, there are presumably about 4,000 adults in the world today at this level of ability. Suppose one could identify all of these people on some ideal test or battery of tests. How many do you suppose would be famous? Even a genius may need a few years of effort to achieve fame. So we can automatically eliminate perhaps 1,000 as too young to have achieved widespread recognition. Of the remaining 3,000, many may have gone into fields where fame is not widely publicized. I doubt if I could name a single "famous" computer programmer, for example, although specialists in this field probably could. In any case, perhaps we're in danger here of substituting for "rich" the criterion of "fame" as the benchmark for high intelligence.

Of the 12 or 15 people who reached the one-in-a-million mark on the Mega Test, possibly three or four of them could be classified as "famous" in the sense of having names millions might recognize. First, of course, **Sumuru** and **Vos Savant**. There is perhaps a third [Editor's comment—I'm leaving this guy's name out because he still wishes to remain anonymous.] (if I have the name correct—he used a pseudonym on the Mega Test and I only recently learned his true name from Chris Cole by phone), who possibly belongs in this category for having discovered a technique for winning at blackjack. Chris Cole and Solomon Golomb were both featured in *Los Angeles* magazine once. Chris is briefly mentioned in the book, *Who Got Einstein's Office*, and Kevin Langdon told me Golomb is one of the half dozen leading recreational mathematicians in the U.S. But it's doubtful that Cole and Golomb are known to millions, even if they ought to be. I think a 10% or 20% "fame" rate for this group of top Mega Test scorers is quite respectable, considering what a sloppy gauge fame is as a criterion of superintelligence.

Ron

[Editor's comment: Among Mega members, I'm probably the most actively involved in the pursuit of fame for its own sake. I've been disappointed with the results I've obtained and consider this general lack of success as a reflection of underdeveloped media savvy. I've mounted several campaigns to get into the supermarket tabloids and the TV tabloids—"Genius gets naked for a living!" with little success. Of course, my failure in this area is also a reflection of how stupid, lazy, and unimaginative TV people can be. The times I did weasel my way onto a show, it was because I did much of the producer's work—explicitly specifying program formats and lining up guests. I dearly wish the **Guinness Book** still had a section on IQ.]

Dear Rick,

I recognize most of the names you list under the heading "Who are These People?" in *Noesis* 69, page 3. Virtually all of them were at one time members of the Mega Society.

- (1) Leta Speyer: 196 IQ on Stanford-Binet
- (2) David Garvey: 196 IQ on Stanford-Binet
- (3) Barry Weiss: 173 IQ on the LAIT
- (4) Naomi Roberts: 173 IQ on the LAIT
- (5) Bruce Whiting: 189 (out of 190) scaled score on the Concept Mastery Test
- (6) John Purnell: 196 IQ on Cattell III-B (=164 on LAIT or Mega)
- (7) J. L. Lemke: Highest score (176 IQ) on the Bloom Analogies Test, never joined Mega
- (8) Ron Lee: Pseudonym of _____, who devised way to count cards at blackjack, 43 right (177 IQ) on Mega Test [including 24 out of 24 non-verbal—Ed.]
- (9) Leonard Weisberg, scored 43 right or so on the Mega Test on second try
- (10) David Kelsey: scored 42 on Mega Test but never joined Mega Society
- (11) Laura Van Arragon: Member of 606 Society, dropped out after Mega Society formed
- (12) Dale Swain: Member of 606 Society, dropped out after Mega Society formed
- (13) Anton Montalban-Anderssen: Prometheus Society member, claims to know 26 languages, quoted by Ellen Graham in Wall Street Journal article last month
- (14) Billy Tarchuk, scored only 35 on the Mega Test but got a perfect score on the spatial section.
- (15-18) Durward McLaughlin, Charles M. Rice, Robert C. Miller, Gary Bryant: Not familiar scores but probably most are high LAIT scorers.

Regarding the word "Noesis," it is in the Merriam-Webster unabridged, where it is given 3 closely related meanings. The only one I knew previously was the meaning the philosopher Husserl gave it. He used it to mean "an intentional act," as contrasted with "noema," which means "the object of an intentional act," where "intentional" means "referring or pointing beyond itself."

Regarding school, I'm not as smart as you are, but I, too, hated almost all of it and skipped perhaps 50% of my classes throughout the entire undergraduate and graduate experience. I only ended up with % degrees including a Ph.D. by switching colleges and majors often. At today's high tuition rates I'm not sure I could have stuck it out. I changed schools twice due solely to inability to pay the tuition, even in those less expensive years, and twice more due to flunking too many courses. And after all that work I ended up self-employed at an income substantially less than \$10,000 per year as of today, so that the degrees have only "status" value, and only a modicum of that, since none of the degrees are from "Ivy" schools.

Ron Hoeflin

[Editor's comments: Jeff Ward, who was editor of *The Megarian*, called with similar information about those listed under "Who Are These People?" We have one new pseudonymous member from that list.

I don't know that I'm smarter than Ron. We share discontent with higher education. Tiresomely, I have various theories about what's wrong with American colleges.

College in America teaches people who aren't college material stuff they should have learned in high school. Thus, colleges are overcrowded, classes are boring, grading and testing systems are inflexible, and all participants are contemptuous of the system and of each other. I like to trace much of this to population increases. Increasing population conspires to waste increasing amounts of people's lives. I believe that overpopulation initially has subtle, insidious effects, chief of which is that more and more people live and die with little trace.

However, **Richard May** has sent me material which gives me hope of graduating from college, for which I am hugely grateful. See below.]

**MARGINAL NOTES FROM RICHARD W. MAY
WRITTEN ON A BROCHURE ADVERTISING
*BEAR'S GUIDE TO NON-TRADITIONAL COLLEGE DEGREES***

Rick,

My fully accredited M.A. from Cal. State was completely "external." I never left New York. This does not mean little or no work, as I wrote 55,000 words of research papers and essays! It does mean I never had to meet my Professors except telephonically. Forget diploma mills or unaccredited degrees.

I want to start an external university called Fax University or F.U. for short!

The answer to Chris Langan's analogy [May issue] is "Megarian" (obviously).

Richard

[Thanks again! Ed.]

E-MAIL FROM MIKE PRICE

MEGA E-MAIL FORUM

I'm offering my services as moderator for an e-mail Mega forum. Here's what I propose:

1) You send me stuff you want e-mailed to other Mega forum members and I will send it on. Identify the mail to be broadcast by starting the subject description with the test "MEGA", followed by the topic title

2) There will be "no" censorship—so Ron and Kevin can slag each other off to their hearts' content, Chris Langan can write about CTMU and I can burble on about physics.

3) Send me your e-mail address (I.e. just e-mail me. I can get your return address from the message header. My InterNet address is

"100034.3077@CompuServe.com").

State membership status (full or associate) and whether you want your e-mail address to be listed for private correspondence. I would suggest that people not use pseudonyms, as is common on some forums, but I'm not going to insist on anything.

And that's it. I want to keep the rules simple. If someone else wants to play at being moderator then I'm happy for them to become List-Lord instead. I know that Chris Cole is interested, but was waiting, I think, for a minimum e-mail interest level. In my experience all voluntary clubs need a pro-active kick-off to get started so I've jumped the gun.

IMAGINARY TIME AND BABY UNIVERSES

You're right to be confused by imaginary time (Noesis #66). Personally I think Hawking's round the bend when he goes on about this. I think his motivation is to treat time on the same basis as space, which involves making the substitution of imaginary time for time, so that the new time coordinate squared has the same sign as the squared spatial coordinates in Minkowski space-time. But we know that time and space are different, so this is where I have to part company with Hawking.

The subject of imaginary time is linked with the no-boundary proposals for the creation of the universe (see "Quantum Cosmology and the Creation of the Universe", Scientific American, December 1991). Now I like the no-boundary idea a lot, but I think it's misleading to pull in the phrase imaginary time, since the Minkowski picture of space-time is entirely supplanted by quantum gravity during the universe's early "moments." A better description would be "complex space-time" rather than "imaginary time."

Baby universes are simply (or should I say complexly) parts of the space-time manifold that in the past were connected to us, but are now disconnected. In other words the worm-hole that previously connected the two regions has now pinched off. The "baby" term simply means that the new universe is smaller than ours. If it's been created in a very dense state then it will, presumably, go off and evolve, via inflation, into a full-grown companion universe. Hence we are the "parent" universe.

It's possible that down at the very small scales of quantum gravity (about $10E-34m$) that the structure of the space-time manifold dissolves into foam and is continually spewing out minute baby universes by the zillion. Which raises the possibility that our universe may owe its genesis to an older "grandparent" universe.

CENSORSHIP IN NOESIS

I think the members should see all the "scandalous" stuff that Ron and Kevin and others are saying about each other and make their own minds up. There have been enough oblique references to this in the past. Please, "Warts and all!" We're not little kids who have to be molly-coddled.

I will say that I hope that Kevin Langdon never refers to me as "my friend," since it seems to be the prelude to the knife going in. Ouch!

THE MERGER

Great! Two mega societies does look rather silly, to less than one-in-a-million people as well, I'm sure. How can anyone object . . . ?

[Editor's comments: About censorship—Ron and Kevin's comments on each other seem increasingly innocuous over time. I was more or less testing the waters, setting a precedent, in case anyone ever sent in anything really unprintable. Enough people have objected to make it obvious to me that censorship isn't acceptable. (except if I ever have to shorten material that is just too long) I have "censored" the name of one new member who wishes to remain anonymous; that's his right.

About e-mail—Chris Cole says that he and Dean and Mike Price have already exchanged dozens of e-letters and that he'll make an edited version of them available for publication here.]

A LETTER FROM DARYL INMAN

Dear Rick,

You asked about opinions in regards to abortion. Enclosed is an example of what we all need to think about. How many gifted individuals have been annihilated by our present society's abortion philosophy? Where will thinking like this lead us? Perhaps there will be no more Chris Hardings, Ron Hoellins, Kevin Langdons, or Rick Rosners. I believe we need to value human life at whatever stage of development. A woman does have a right to her own life. But so does the child within the woman's body!

Sincerely,

Daryl Inman

Taken from the **Christian Baptist** 1992

A UCLA Medical School professor presents the following case history to his students: "A woman who suffers from tuberculosis is pregnant. Her husband has syphilis. There are three children in the family. One is blind, another deaf, and the other suffers from tuberculosis. Yet another child died in infancy." Under the circumstances, most of the students recommended abortion. Their professor then informed them: "Congratulations, you've just killed Beethoven!"

[Editor's comments: This seems like a stupid group of med students. Tuberculosis isn't a genetic disease, and neither is syphilis. Deafness and blindness don't have to be genetic. The prof didn't mention whether amniocentesis was performed. There are no overt medical reasons to recommend abortion.

As far as great individuals being aborted Such speculation belongs to "What if?" theories of history. Do fetuses at greater risk of being aborted have a greater chance of being positive additions to humanity than fetuses at lesser risk?]

A LETTER FROM ROBERT DICK

Dear Editor:

The earth will never be overpopulated if governments will just step back and let people choose for themselves under freedom and capitalism. Wealth is the best and least coercive birth control mechanism there is. For example, the white population of the United States is currently reproducing at less than replacement level. This is true of most other wealthy countries as well. Germany, for instance, is reproducing below the replacement level, and the German population is now less than it was in 1933.

Similarly, the earth can sustain far more people than it has now. I refer you to the late Herman Kahn's book on the year 2200. He goes into considerable detail on how technologies available now can do the job. To take just one example, hydroponics, the art of soil-less gardening, can produce vast amounts of food for very little input.

In fact, the population of the earth is no longer growing at an exponential rate. We reached the inflection point decades ago and now the rate of increase of population is steadily falling.

As any salable commodity becomes scarce, under capitalism its price will rise. Alternatives will become more attractive, and use of the scarce commodity will fall. Therefore we will not "run out" of anything.

I could go on, but you get the picture.

As for the worth of a large population, I believe that every human being is unique in the sight of God. I believe the purpose of human life is at least in part to disentangle good and evil, reinforce the good, and extinguish the evil. So immense is the task I would not think a hundred billion human beings would be too much for the problem.

Very truly,

Robert Dick

FROM KJELD HVATUM

Dear Rick,

The high IQ test effort is interesting—I wish I had more time. I may have some material later.

Glad to see the members/subscribers list, but which are members?

What is now the official address for Mega society inquiries? Jeff Ward's address recently appeared in rec.org.mensa on the Usenet (as the address for the Mega society).

I've enjoyed Noesis!

Sincerely,

Kjeld

[Ed's: I handle Mega Society inquiries through the address listed under editorial, but it takes me a long time to respond. I'm off the e-net, so e-inquiries should go to Chris Cole, who will handle them or send the hard copy to me.]

FROM LEROY KOTTKE

Rick,

Re Noesis 69—

Having grappled with Bob Hannon verbally in the past, I feel that I am entitled to at least one censorable personal affront on a supposedly intelligent person—i.e. You can lead a horse to water : but you can't make him drink :: You can lead a horse's ass to relativity : but you can't make him think!

Enjoyed Chris Cole's Relativity Primer—the rocket sled light clock.

LeRoy Kottke

LETTER FROM DONALD SCOTT

Hi Rick, how are you?

I have a few brief questions, and if you can answer them great, if not no problem. In one of your recent issues of *Noesis*, I noticed that you mentioned something about William Sidis. About three years ago I read the book *Child Prodigy* by Amy Wallace, and I was glad to read about someone doing something I always felt could be done, which is William Sidis's father Boris raising William to be a genius.

Early in the book, Boris spoke about his learning to think and reason while in prison. He said he was locked up for two years without books or anything else. He also said he learned to put his discomfort behind him by concentration on ideas.

My questions concerning the book are as follows.

Do you think if there are no problems with a person's brains, could all people be raised to be geniuses? Also, do you think everybody could learn to think well by concentrating on ideas?

My last two questions are as follows.

What is abstract thinking, and how could I develop the ability to think abstractly? Also, I read somewhere that Marilyn Vos Savant learned to use logic and critical analysis at an early age. What is critical analysis, and how could I learn to use it?

Good luck with school and the rest of your future endeavors!

Sincerely yours,

Donald Scott

[Editor's comments: I don't think everyone could be made into a genius, but I do think that appropriate training could make almost everyone much more intelligent. Genius of a historical type (Newton, Darwin, etc.) is a fluke—its creation requires unusual predispositions to concentrated thought combined with lucky combinations of stimuli and encouragement. Appropriate environmental stress can force anyone into the habit of thinking—of distrusting other people's conclusions and habitually drawing one's own, based on intense observation. However, the keys to unlocking intellectual performance are different for each person, and each person must struggle to find those things which most encourage productive thinking.

I'm similar to William Sidis in that most of my thinking is unproductive. I waste most of my time fiddling around with obsessive, repetitive contemplation of absolutely trivial stuff. Unlike most people, I'm habituated to continuous contemplation, but I'm lazy and continuously contemplate crap. However, once in a while, I encounter some stimulus which triggers an unstoppable string of what seem to be insights into the structure of the world. These occurrences are exciting but not necessarily pleasant, and I avoid them almost as much as I encourage them. I suspect that people who are great, trained thinkers have searched until they've found reliable triggers for strings of insight. They do their utmost to trigger frequent insightful thinking.

No one set of ideas will prompt productive thought in each person. However, exposure to a wide range of facts and ideas spring-loads your brain like a powerful mousetrap. When the right stimulus triggers your concentrated attention, you can attack it with all the knowledge at your disposal.

Abstract thinking is the process of taking specific occurrences and assigning them to general categories. It's taking things that aren't obviously similar and finding hidden similarities. It's breaking complicated processes down into simpler components, then recombining simpler processes to see the range of possibilities. Sometimes, as part of my sleazy lifestyle, I model for animators, people who work for Hanna-Barbera and Disney. They take complicated human movements and expressions and break them down into their simplest components in order to make cartoons. To think abstractly is to be able to look at anything and make a cartoon, a simplified caricature, out of it.

Critical analysis is, I guess, refusing to take anyone's word as truth on a particular subject. You pick a subject, gather as much information as possible, and draw your own conclusions. If you're lucky, you become a self-made, independent thinker. If unlucky, you become isolated, paranoid and sometimes, simply wrong. You must pick your subjects to maximize the return on your mental investment. Originality is as important as precision—if you find a new subject to analyze, you don't have to be as stringent in your thinking as those people in established fields. This is another reason I object to increasing human population; there are so many people, commanding powerful technology, that finding a novel field is very tough. The earth has over 20 times the population it had at the time of Christ. The U.S. has over 80 times the population it had in 1776. Are there 20 Jesus Christs today, or 80 Benjamin Franklins? If there are, where do they fit into our lives?]

A LETTER FROM GERALDINE BRADY

Dear Rick,

Enclosed is the money I owe.

How are you on Ph.D. theses? I need help. I have been trying to complete one for years and something bad always happens (I have had advisors die, leave the country, get pissed off at me, get fired, have nervous breakdowns, etc.). I have an opportunity now to get a degree in philosophy if I can just produce a thesis, but after all my trials and agonies, I find that I am sort of burned out. I need ideas and possible options. I'm not into the kind of stuff that Ron Hoeflin is interested in; my undergraduate degree was in mathematics, and that is what I like. Rucker has a book (1987) called *Mind Tools* that is close to my cup of tea. I have written a long paper on Cantor, Zermelo, and Godel which might have potential. Would you be interested in getting involved in this project? If not, do you know of any people in the Mega organization who you think might be interested?

Thanks. I wish you good fortune in all the things that you wish for in life.

Geraldine Brady

[Editor's comments: Thanks for asking me if I know how to deal with Ph.D. theses. I don't even have a B.A. yet, and my family has a similar history of trouble with professors and advisors. My mom had five thesis topics nuked and never completed her Master's; my sister received an "H" (two grades below an F) on a paper and a failing grade in a women's studies class because her prof didn't like her heterosexuality and the size of her breasts. Then the prof went on foreign sabbatical, costing my sister an extra year in school and honors at graduation.

I'm more interested in cosmology and metaphysics than in straight philosophy but lack any sufficiently developed metaphysical ideas. For a long time I've been messing with metaprimes (Noesis #59), which I've been told would make an adequate Master's project, but they're more mathematical than metaphysical.

Mega members have a wide range of mathematical expertise and interests, from psychometrics to relativity, some of which would probably be coincident with your interests. I hope so. How about it, y'all?]

A LETTER FROM JOHN MATHEWSON

Hi Rick—

Noesis number 69 arrived, and I dispassionately observed my full name neatly printed there in plain sight.

Numbers 67 and 68 were inspiring. H. L. Mencken couldn't have done a better job of editing. (Dead or alive.)

When I talked to you last, you asked, "What are you?" and I, without thinking, said "Nothing." You seemed slightly taken aback, and didn't ask why I said that. Since I am not a member of the Mega Society, and have not planned to try to participate, and feel lucky to be able to subscribe to Noesis, any biographical material should be treated as pretty much irrelevant. However, to satisfy any curiosity you may have, (and I hope that you will not print any of this), I was born in 1922 in Kansas, was a midwest "dustbowler" in the 1930's, graduated from high school in Fresno in 1939, became an accountant, was in the army for more than three years in WW II, was an Oregon logger and truck driver for about 10 years, on and off, during which time I managed to get a BA in Psych. from UC (Berkeley) in 1952, was a land surveyor, a high school math teacher, and eventually, from 1960 on, a computer programmer and computing systems analyst. I retired from Boeing Computer Services 1-1-88. Retiring tends to cause one to become one of Orwell's "unpersons." And that is why I said "Nothing." It was not to be disingenuous. About statistics. I have taken some elementary courses, and I think I have more than a dozen books on that subject, and I plan to start reading them any minute now.

I've just received a letter from Mr. Hugh G. White, informing me that I have been approved for membership in the ISPE. In spite of what Chris Harding's observations may foreshadow, due to my (usually misguided) bravado, or something, I will probably send in the \$43.00 fee, and will find out whether I am too old to learn "that ISPE is a lesson we all need to learn." I once started a group for exchanging software information. It soon became defunct for lack of support. Proletarians are largely unteachable. Must all human endeavors be flawed?

Well, enough for now.

John Mathewson

[Editor's comment: You say that you hope I don't print any of your biographical info, but I found it interesting, as I think other readers will. I'm trying to reach you by phone to ask permission.]

SHORT FORM TEST — MORE COMMENTS

Chris Cole

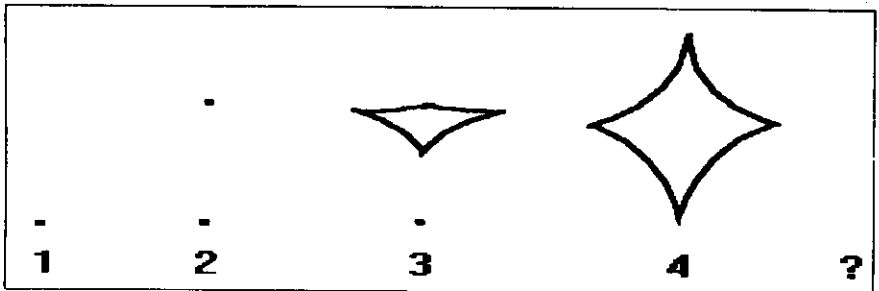
What is the purpose of the short form test? In my opinion, it is to serve as a recruitment tool for the Mega Society. How will it be better than the Mega Test? In my opinion, it will have the following advantages:

1. It will be shorter. This will be more inviting.
2. The problems will not involve huge amounts of work to solve. They will be of the "aha!" type — you will either get them right away or be totally stumped. There will be no handles to invite exhaustive attack, either via mathematics or reference work. Therefore, the test will not be exhausting. Examples of what I mean are Ron's PAIN : RUE :: BREAD : ? and Mike Price's BODY : HOLE :: MAX : ?.
3. The questions will not be culturally biased. Few Chinese know Greek mythology, for example.

Ron Hoeflin asks how I propose to norm my test? First, it is not my test. The basic idea is Rick's and I am not even close to being the most prolific contributor. I am an advocate of the idea, but so are several others. Second, I've always assumed that Ron would score and norm the test. So I turn the question around: how would you norm it?

SHORT FORM TEST — CONTINUED

8. (Rick Rosner)



9. 0, 20, 6, 2, 5, 4, 2, 6, 0, ? (Jeffrey Wright)

10. Consider the "volume" of an n -dimensional sphere of radius r . For $n=1, 2, 3$ the "spheres" are the line segment, the circle, and the sphere, and the volumes are $2r$, πr^2 , and $\frac{4}{3}\pi r^3$. What is the volume of an infinite-dimensional sphere, radius r ? (Marshall Fox)

TRIAL TEST 6

Ronald K. Hoeflin
P. O. Box 539
New York, NY 10101

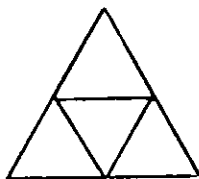
The previous five trial tests were all verbal analogies tests. The remaining trial tests will all involve non-verbal problems. I have decided to include only 10 or 12 problems per test, since a 25-problem non-verbal test probably would be excessively time consuming. Each test will include two different kinds of problems with five problems of each kind. These may be supplemented with a couple of problems of previously employed kinds if none of the problems of that kind were of sufficient difficulty or if all had to be discarded for some other reason. There will be at least 12 of these non-verbal trial tests with ten problems apiece minimum, for a total of at least 120 trial problems. You can attempt any one of these trial tests for \$2.00 apiece. There is no further fee for those who already paid \$25 for the entire series of tests. If paying by check or money order, make payable to "Ronald K. Hoeflin" at the above address. Your score report will consist solely of the number of problems you got right. A score distribution chart for each trial test will be published in this journal so that you can see how your score compares with the scores of other participants. No attempt will be made to estimate an IQ or percentile for each score. The problems are not necessarily arranged in order of difficulty, so you should give each problem a sincere try, even if some of the initial problems seem too difficult. From 12 tests with two different kinds of problems each, I should end up with 24 different kinds of non-verbal problems, which will serve as the basis for selecting the 24 non-verbal problems to be used in the final so-called Ultra Test along with a selection of 24 verbal analogies. You should try to get your answers back to me within about a month or so at most, although I will continue to score answers beyond that time frame.

Draw the figure that should fill the blank (identified by the question mark) in each of the following series:

5.	4.	3.	2.	1.

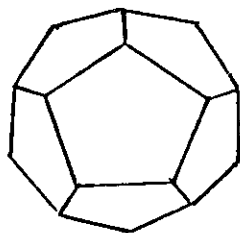
6. If the four sides of a square consist of rods each of which is painted white or black, six distinct color patterns are possible: (1) all sides white, (2) all sides black, (3) one side white and the rest black, (4) one side black and the rest white, (5) two adjacent sides white and the other sides black, and (6) two opposite sides white and the other sides black. Suppose that each of the twelve edges of a cube is a rod that is painted white or black. How many distinct patterns are possible if any three of the rods are painted white and the other nine are painted black?

7. If the figure at right consists of nine rods of equal length forming four equilateral triangles, and if each of the rods is painted white or black, how many distinct color patterns are possible if two rods are white and the rest black?



8. Suppose an octahedron consists of twelve rods all of equal length and forming eight equilateral triangles --the eight sides of the octahedron. If any two of the rods are painted white and the rest black, how many distinct patterns are possible?

9. Suppose a dodecahedron consists of thirty rods forming twelve pentagonal figures of equal size--the twelve sides of the dodecahedron. If any two rods are painted white and the rest black, how many different patterns are possible?



10. Suppose an octahedron consists of twelve rods all of equal length and forming eight equilateral triangles --the eight sides of the octahedron. If any three of the rods are painted white and the rest black, how many distinct patterns are possible?

End of Trial Test 6