

# NOESIS

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EDITOR  
R. Rosner  
5139 Balboa Blvd #303  
Encino CA 91316-3430  
(818) 986-9177

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**EDITOR'S COMMENTS:** Let's have an election. I'll continue to be editor if y'all want; Chris Langan would like to do the job; other people wanting to run should send their names to me within a month of the date you receive this issue.

## A NOTICE TO THE MEGA SOCIETY AND THE STAFF OF NOESIS by Christopher Langan

In a recent conversation with member Kevin Langdon, we established certain points of agreement regarding *Noesis*. At his suggestion, I'm submitting this brief report of our discussion.

First, Kevin - like me and many others - is concerned for the survival of the Mega Society, particularly *vis-a-vis* the well-known tendency for high-IQ clubs to fall apart in orgies of bickering. These arguments are usually both personal and political in nature,

and every such group - including ours - seems bedeviled by them. It therefore behooves us to exercise caution in this regard.

Next, I agreed with Kevin's observation that it will take a considerable amount of time to undo the damage that has already been done to *Noesis* by way of vulgar and inane content, some by members and some by nonmembers. Anyone who once respected the journal is quite unlikely to respect it now and earning back this respect is likely to be a long and arduous process.

Obviously, we could not discuss *Noesis* without discussing the performance of its current editor. As we all know, Rick Rosner has a credibility problem which devolves to a number of factors, one of which is that he was never elected through any sort of due process. Another is that Rick's performance has been spotty in a number of important areas: when it comes to punctuality, attention level, and regard for the priorities of other members, Rick has left a lot - and I do mean a lot - to be desired.

As a recent example of what I mean, consider *Noesis* 106. On page 4, it contains a cover letter to Chris Cole that was not intended for publication. Previously, I had taken care to protect the identity of Edward Thorp as the pseudonymous Mega member charged with reviewing my proofs. Since Cole had made the introduction, he already knew Thorp's identity. But since he also knew that Thorp preferred to participate under a pseudonym, it should have been clear to him - and through him, to Rick - that the letter was not to be printed. So we have either a case of gross negligence, or a deliberate violation of a member's right to privacy...possibly meant to cast another member (me) in an unfavorable light.

Now look at issue 107, six pages of which were arrogated to a non-member, one Robert Hannon. If anyone in this group (except Rick) doesn't yet know that this person is several aces short of a full deck in the modern physics department, it's a well-kept secret. Obviously, *Noesis* - and Mega - are not glorified by an editor who can't take such rudimentary editorial distinctions (remember, as the editor of any *respectable* journal knows, editorial rejection of irrational submissions is not the same as "censorship"). And it wasn't as though these six pages couldn't have been filled by a real Mega member; Cole and Rosner have had at least nine pages of epistolary responses from yours truly on ice since June!

Now, neither Kevin nor I had anything bad to say about Rick on a personal level. The way Rick lives his own life, and the kind of person he "really is," are none of our business. There is wisdom in the dictum "judge not, lest you be judged." In fact, I'm sure I speak for all of us when I express our universal appreciation for

the dogged way Rick has hung in there for all these years, even when his heart wasn't really in it...and I say this despite having been one of his harshest critics.

Admittedly, it would sound better to say that Rick "stepped into the breach" when nobody else would have, "saving" the Mega Society by carrying its journal out of the flames on his sturdy shoulders. But we can't say that. Rick could have been replaced at any point by somebody who not only meets all the requirements, but has a better track record to boot. For example, I published the journal for half a year, paid for it all, never missed a deadline, never rejected a submission, and singlehandedly filled it with superior content at a time when nobody else could spare a dime, a minute, or a postcard...and would, had he dropped the ball for keeps, have caught it before it hit the ground. And nobody is even saying that I was his only available replacement!

Thus, it is puzzling - given his admitted disinterest - that Rick has "hung in there". Although some of us may have assumed that his tenacity owed to some kind of altruism - some desire to help the Mega Society achieve the respect for which it periodically yearns - his own contributions cast extreme doubt on such an assumption. Whatever their attractions for Rosner or Cole or anyone else, masturbation, scatology, and nose-picking typically do not engender "respect" in the kinds of people whose attention we want.

In the past, I may have seemed guilty of too unilateral a perspective on all this. But I typify our members in the sense that each of us, somewhere in the back of his or her mind, dreams of making a truly noteworthy contribution to intellectual posterity. Clearly, no such contribution can succeed without the right kind of audience, and the right kind of audience simply does not associate worthwhile effort with brassy mental incompetence and/or fellatio in elevators. It may be that some of us, in our private moments, find such material funny or titillating. But here in *Noesis*, it's the organizational equivalent of a "kick me" sign.

Accordingly, Kevin and I - and probably the rest of us - agree that the editorship of *Noesis* is properly subject to democratic review. What that means is this: the next time Rick Rosner fouls up egregiously in the editorial department, an election will follow *immediately*. I stress the word "immediately" because, when a journal is published only at intervals convenient to its editor, the democratic process can get smeared out over very dilated time periods. In short, Rick will not have the option of timing his own "election campaign". This election will include policy guidelines and will occur even if I have to run it myself. If it goes against him, Rick will be required to step aside...again, *immediately*. And that naturally goes for his other electable office, "Treasurer".

On the other hand, if it goes for him despite his objective failings - e.g., taking three months to publish a monthly journal - then we're back to square one. Square one is described in *Noesis* 106, page 9. That's where I introduce the alternative Mega Society journal *Noesis-A*. This new journal would come into existence *immediately* because I, for one, cannot afford to have years of effort buried under large, stinking piles of what *Noesis* has tended to be full of lately. That's my inalienable right, and that of any other member who wants a legitimate chance to be heard.

NEWCOMB'S PARADOX REDIVIVUS (by Chris Langan)

This is in response to Robert Low's remarks on Newcomb's Paradox in *Noesis* 102. I'll try to make this really easy to follow.

NEWCOMB'S PROBLEM: Given two boxes A and B, you are told by an entity that you may choose to open either box A and box B, or box B alone. The entity, who claims to have predicted your choice, informs you that while he has in any case put \$1000 in box A, he has put \$1,000,000 in box B if and only if he has predicted that you will (choose to) open B alone. You have observed the entity play the same game with many others, and he has predicted correctly every time. You know that such asymmetric data are quite unlikely to be random, but you also believe - and most of your experience confirms - that time is linear and your choice unpredictable. What should you do?

Obviously, there are two ways to solve Newcomb's problem, which is not the same as the paradox. There is an argument in favor of each solution, and each argument purports to "rationality". That is, while only one argument is called "expected utility", both actually purport to maximize *expectation* on the basis of different assumptions regarding the nature of time and physical reality. In neither case does this equate to maximizing the minimum amount of money that might be received; rationality is not defined that way. Trying to maximize the minimum possible reward instead of trying to maximize expected utility is irrational by definition. That's because it can lead to a loss of expected utility, and rationality always seeks to *maximize* expected utility (as defined on simple mathematical expectation: reward x probability of reward).

[The above paragraph suffices to resolve your main "point". It was originally followed by a clarified exposition of my original 1989 paper, *The Resolution of Newcomb's Paradox*, complete with easy-to-follow illustrations and ties to various branches of physics and philosophy. But since I didn't want to see it buried under a pile of booby-hatch-reject pseudoscientific pornographic vulgarianism, and since I'm still not getting the slightest amount of understanding or cooperation towards the restoration of reasonable journalistic standards for *Noesis*, I'm afraid it will have to wait. If you see it at all - and it goes far indeed towards demystifying the CTMU - it will be in the proposed alternative Mega Society journal *Noesis-A*.]

TO WHOMEVER COMPILED THE COST-PER-PAGE TABLE IN *NOESIS* 102: The cost per page of *Noesis* 44-49 to the average subscriber was nowhere near "13.9 cents". Two members voluntarily paid for their copies; the others paid a cost per page of 0 cents. Of course, the cost to the publisher (me) was correspondingly higher. To some extent, the same may apply to other editors. I'd be surprised if most of the members who charitably accepted editorial responsibility ever got a dime. But then again, why *should* they have? Their issues were insufficiently loony, cheesy and sleazy to be worth a nickel, at least by present "standards". (Chris Langan)

Dear Robert Dick:

This is my reply to your letter of January 17 in *Noesis* 102. I believe you'll find that its tone matches yours.

Regarding the importance of family and emotional life:

The world is full of those who feel no pity, and who have no loyalty, towards any but those they call "their own". They are not in general Christian. Those claiming a level of ability that should let them solve urgent problems insoluble to others, but do not use it on the grounds that their personal affairs are more important, do no service to mankind. If you are not at least humble enough to serve your fellow man - and if you are in fact so aggressively self-absorbed that you will spit in the face of one who has tried to do his duty in your stead - then, while I refrain from disputing your "Christianity", I would nonetheless like to know exactly what kind of "Christian" you profess to be.

You are lucky to have a family nearby that loves you. I do not; my love for my unborn children, and for future generations of humanity, prevents me from taking a wife who is genetically compromised (I refuse to consciously doom my descendants to possible lifelong dependence on medical technology, or to lack the higher level of intelligence demanded by social evolution). Because I have pursued truth in relative poverty, I cannot pay the monetary price that women of "good breeding" have learned to demand for their procreative services...nor, I confess, can I happily abide the lack of loyalty that even so subtle a form of prostitution guarantees. If I were a severe diabetic with ten million dollars, I could doubtless buy a fit mother for my sickly offspring, thereby denying one to someone more healthy. But since I work for low pay and live meagerly in a one-room shack, my reproductive qualifications are strictly mental and physical (i.e., "irrelevant").

This may be a tragic condemnation of modern reproductive practices and values. It may also be God's way of reminding me that in an insane and overpopulated world, having a child is dangerously like selling it a nonrefundable ticket on the Titanic. But either way, whether it be a wife or a four-year-old grand nephew, a family is a luxury and a privilege, not an excuse to ignore your obligation to the rest of mankind while excoriating those who are more responsible, or stronger of mind and heart, than you are.

On your work in Fourier analysis:

You were rejected by those who found your name and credentials insufficiently impressive to bother with your work. Yet, through the Mega Society, you find yourself in possession of a "credential" that bought you access to mine. A true Christian would move mountains to avoid repeating the injustice he had suffered. Instead, you feed it to me on the tip of a lash. You ponder which of the Ten Commandments are "the most important". I say to you that for a Christian, the most important commandment numbers just one: do unto others as you would have them do unto you.

For example, despite the obvious foolishness of certain articles on relativity theory, I read them thoroughly and set what must be a record for trying to reason with their author before running out of patience. Similarly, having asked you to read my work, I took the time and effort to carefully read yours (I was not appreciably edified). So before you seek yet another mote in my eye, will you not cast out the beam from thine own?

Regarding your amateur theology:

I, too, am an amateur theologian. That is, I pursue my interest in religion for love rather than for money. You profess faith in the Bible, yet dispute biblical accounts of the death of Jesus. That isn't really important, except that it reflects a gradual change in the meaning of "faith". In its most extreme and common form, this change manifests itself as a total lapse of religious belief. The loss of faith is a disease whose symptoms include the ethical and social degeneration we see all around us. This testifies to the fact that religion is not merely a source of comfort for people like you, but a necessary linkage between human psychology and the social wellbeing of humanity. Unfortunately, whatever one might say about the necessity of faith, one fact is indisputable: it is no longer working. Mankind, eaten alive by metastasizing cynicism, fanaticism and intolerance, is on the edge of a Nietzschean chasm in which God lies "dead". As faith crumbles away inexorably beneath its feet, it stumbles dangerously for want of a safer and sturdier bridge to salvation. In a world which has come to place most of its "faith" in the logical and mathematical principles of science and technology, this bridge can be constructed in just one way (see *Noesis* 76).

If you really understand Fourier analysis, then you see the intimate connection between mathematics and physical reality. If you really understand religion, then you know that a religion which does not attempt to tie itself to the creation and structuring of reality fails for its lack of relevance. Where is the religion without its genesis myth, and without recognition of the Hand of God in nature and the affairs of Man?

This need has driven an historical progression in which a great day has finally dawned: religion, mathematics, and reality can be united as one. Among the religious-purpose nonprofit organizations legally incorporated in the United States in the year 1993, one was called "CTMU". The acronym, as I have previously explained in *Noesis*, stands not only for the Cognition-Theoretic (or Computation-Theoretic, or Cognito-Telic) Model of the Universe, but also for *The Church of Teleology of Multiplex Unity*. It is the logical matrix in which all lesser religions are necessarily embedded, and in which they can therefore be revitalized and reconciled.

The bottom line:

Many people, when confronted with superior insight, adopt a face-saving strategy as simple as it is reprehensible: they refuse to acknowledge the insight, and for this they blame their "opponent". Yet, understanding the CTMU requires only logic, and he who admits that he knows nothing of logic admits that he knows nothing. As I've written before in these pages, there is none so blind as he who will not see, nor so lame as he who will not stand.

The CTMU offers you meaning, the logic of love, and a universe cast in the deepest image of the human mind and heart. You say you need neither me nor it. Meanwhile, another holds up to your face a murky mirror streaked with physical vanity, sullen mediocrity, gratuitous vulgarity, and self-professed stupidity. Suddenly you are filled with a burning "need" for more. If this is your last word to me, then here is mine to you: redemption can be poured only into an open heart, and a meaningful spiritual destiny only into an open mind. When your animal and emotional comforts have finally deserted you, what then will light your way?

Chris Langan

Dear Kevin (Langdon):

This is in response to all of your letters in issues 103 and 104, from which I was pleased to learn that you at least tried to read the CTMU material I've published. Actually, given the standards of *Noesis*, I'd believed the latter to be uncommonly clear and precise (except in *Noesis* 79, where I listed unexplained consequences to disabuse the usual parties of certain strange notions regarding my work). Unfortunately, my central topic - the logical requirements for a "theory of everything" - is as demanding to read about as to write about. So while I can't accept full responsibility for anyone's incomprehension, some of your points are well-taken (I was particularly impressed by your lecture on "forging consensus").

Regarding other points, I just want to make sure we're on the same wavelength. For example, on p. 6, *Noesis* 104, you write: "The need for 'a real genius' to administer a test is a bug, not a feature." Maybe so. But let's state the obvious: any high-ceiling test whose problems have not been rigorously solved with respect to a closed, meticulously defined set of conditions must allow for the chance that an extremely intelligent test subject may give an answer superior to the one considered correct. If the tester is not himself a genius, he will fail to recognize this and mismark the test. You seem to imply that this obvious objection does not apply to your tests. For the sake of argument, let's say you're right.

However, you elsewhere concede that "IQ", which you associate with the intellectual adaptivity required to solve a number of independent problems, is not the only component of intelligence. There is also a major component of intelligence which is responsible for scheduling and orchestrating large numbers of *dependent* subroutines within larger routines designed to solve larger and more important problems whose complexity far exceeds any random relationship of IQ test items. Whereas IQ tests merely require solution of a number of independent pre-specified components, more profound intellectual abilities are required to identify and solve a number of dependent but unspecified components in the proper arrangement and order. This is where the *real* ceiling of intelligence resides, and it occurs far above the level of any problem on the Mega Test. So we needed a new kind of test to measure this factor, call it *h*.

Not to bore you with more logic, but in order to definitively assign truthvalues to a subject's answer sheet on this kind of test, you require a cognitive language of higher order than that of your subject with respect to the entries on the test. If you propose to measure his level of "genius", you must be one yourself. It's just as clear that this "symphonic, architectural" kind of intelligence *h* involves "fluid" intelligence *g* as a co- or sub-factor, and that only the one with the highest (*g* and/or *h*) is able to definitively measure *everyone* else's intelligence (up to his own peak level).

It's not hard to see that *h* "regresses" to the general problem of which specific problems are the most important. The true genius is distinguished precisely by his ability to choose or invent the "best problems" on which to target his intellect...to apply his mental energies in the most efficacious and economical way. Unfor-

tunately, one cannot do this by letting others choose his problems for him. Just as clearly, it is impossible to compare performance on any "test" in which every subject is allowed to choose his own problems. This is presumably why you describe as "ridiculous" the idea that I should be the one to choose the problem to be used as a measure of my "intellectual prowess".

Accordingly, I let the problem "choose itself" in a natural way. Since the measurement of intelligence, and comparisons among the means thereof, requires first a knowledge of what intelligence is, the "most important problem" is how to characterize intelligence. Looking at it another way: since intelligence is a facet of reality as apprehended by intelligence, the problem is to give a joint characterization of reality and human intelligence...the obvious first step in the intelligent solution of a maximum number of important real problems. Since no known formalism has sufficed to solve this problem, no formal background is needed for the search.

A bit more on "background". If somebody identifies the "best problems" on which to focus his mind, his obvious first step is to supply himself with the proper background to solve them. If, when he finally presents a unified solution, he then encounters others who have been working on the same problems - e.g., cognitive aspects of reality like the nature of intelligence and the "metaphysics" of free will - are they allowed to blame him for not having themselves acquired the necessary background? Can they refuse to accept his having solved the problem first as proof of his intellectual superiority, particularly when the "missing background" is nothing but an essential ingredient of verbal reasoning like elementary logic? You tell me; maybe my thinking on this is off.

The solution of the above problem is, of course, the CTMU. Unfortunately, Mega reacted to it not with a blinding demonstration of cognitive pyrotechnics, but by dummyping up and switching channels. This brings us to my second choice of a proposed solution to "who wins and who loses in the Mega Society Sweepstakes". This alternative is only slightly less ambitious: I selected just those problems that have at some point been acknowledged as the most outstanding conjectures in fields that are not far removed from the basic cognitive language known as "logic", and which - due to the fact that no one had succeeded in coming up with a formalism adequate to solve them - required no particular "background" in any advanced formalism. Indeed, the real problem was to invent the required formalism and apply it "self-solvatively".

For example, no one denies that the four-color map problem is very easy to state and understand. Yet, due to the fact that no formalism was ever invented to solve it efficiently, no formalism need be learned in order to work on it. To use your own phrasing, "the playing field is level" with respect to it. Furthermore, as of 1976, when a so-called "computer proof" was successfully passed off as a solution despite its direct inaccessibility to humans, it was widely viewed as the premier unsolved mathematical conjecture. Similarly, the P=NP conjecture held an analogous position in the pure theory of computation. Because neither of these problems has ever been publicly solved, nor a solutative formalism definitively



established, their qualifications as test items remain intact. And they have the added benefit of being related to my first choice - the CTMU - as direct (and rather dramatic) applications.

One thing you are right about, though - I have already solved all of these problems, and I've already given the solutions to the best man the Mega Society had to offer as a referee. Having agreed to serve in this capacity, the gentleman in question now seems to have decided that the issues are too volatile, and he too busy, to fulfill his obligation. But while I can't help but sympathize, the Society for which he proxies (Mega) is in default of our express understanding. As my team showed up but the opposing team didn't, *I win*. In this light, your belief that nobody in the Mega Society "feels challenged" by the CTMU reminds one of a sleeping child who, having just wet the bed, doesn't yet "feel damp".

Naturally, you may want to remonstrate with me about the extent to which agreements with specially qualified members are binding over others. Yet, because ordinary members have displayed an intellectual and/or motivational inability to assess my work, consulting them in advance would have been a waste of my time and theirs. And don't expect any negative output from the volunteer referee. He can say neither that what I sent him is "wrong" nor that it "isn't really mathematics"; all terms and relationships in the proofs are carefully and conventionally defined on mathematical clichés like *graph*, *mapping* and *logical function*. The fact is that after a year, he cannot point to a single critical error or logically undefined concept, and is too upright to deny it even to save face (anyway, if someone tells me his eyesight and tourist credentials are A-OK, I spend a year to put him on a rocket and fly him to the moon, and he refuses or forgets to look out the viewport, then so what? I did the work, he signed for the ticket, and it's C.O.D. .)

It may occur to my detractors, their best man having admitted that he isn't up to the task of "kicking my ass", that they should now send forth their "best best man". Okay, then, trot him on out and let's get it over with. All this new "champion" has to do is meet and agree to the conditions set forth in *Noesis* 100. I'll then send him the proofs, and he can damn well do what he agreed to do. [Why am I reminded of a scene from the movie *Escape from New York*, where Isaac Hayes - "The Duke of New York" - addresses an auditorium full of vicious cutthroats: "They sent their *best man*. Tomorrow, when we ride to freedom, their best man will be leading the way. *From the neck up!*" (The crowd roars hungrily). "*ON THE HOOD 'A MY CAR!!!'*" (Of course, my role wasn't played by Hayes, but by the guy who "won" in the end, Kurt "Snake Plisskin" Russell.)]

I was also a little confused by your belief that all anyone has to do to avoid getting ripped off is publish his work "somewhere, anywhere". I'm curious - how would you make a thief or his accomplices *acknowledge* this in the absence of legal force? Evidence means nothing if you have no one to show it to, or if those to whom you show it don't feel like looking at it (e.g., because you lack credentials, they don't like you, etc.). The problem becomes worse if those in charge of the publication in which your work appeared are unsympathetic to your cause; they might not back you up

if queried, thus undermining your claim. "Paranoid" though it may seem, it looks to me like once you have a closed shop controlling the journals in your field, credit goes wherever the shop says it goes. Copyright and patent laws cover wording and concrete applications, not theory. If your court of last appeal is the same closed shop that ripped you off in the first place, where to next? How do you differ from the victim of a corrupt police chief who sneers at you and asks, "And who are you gonna report me to? The cops?"

Let's take a couple of near-examples. Long ago, I published several detailed articles in *Noesis* on the relative nature of probability. A few months later, I heard that another member had gotten a lot of publicity for solving a problem in applied probability theory using...yep, a relativization of probability to initial data! (I was really quite pleased that someone had paid attention, but would have been even more so had my own remarks on the topic ever received acknowledgment.) More recently, Richard May proudly announced a "new" concept: a cybernetic approach to religion. The funniest part: he appears to have no clue how to make it happen, despite five years of detailed explanations from me. Go figure! My point: how do you suggest that I get someone - *anyone* - in this Society to credit me for my previous work on any topic whatsoever?

One of your letters contained an interesting turn of speech: you say that I've made "liberal use" of free space in "our journal" to write about the CTMU. When you say "use", you ostensibly refer to some form of utility, thereby implying that I've received some kind of reward or recognition. I find this an intriguing supposition, and would appreciate knowing what that was. I can understand how you might think that the *Mega Society* has gotten something out of the deal - namely, a chance to be edified about matters that seem to occupy them (like metaphysics) and a new lease on life through a merger with a sister group that was, at least in the beginning, of a more energetic and optimistic stripe - but as far as I personally am concerned, I'm afraid I don't know what you mean. First, *Noesis* is not "free"; I've paid a lot to get it, and even published it at my own expense for six months. And second, I've worked my tail off to hold up my end of what I *thought* was a common obligation. Having been the only one to fight the good fight from start to finish, I'm perplexed by this "personal utility" angle. For that matter, how can utility even be *defined* in a group whose "leaders" have abandoned any hope of consensus (see Chris Cole's letter in *Noesis* 102, page 28, and the statement by R. May on the front page of the same issue)?

I well understand your emphasis on democratic principles in a group like this. However, democracy has never been a license for the majority to walk all over the individual; individual rights are its main justification. When someone signs on for a democracy, and then works hard in what he believes is the common interest, he has a right to be recognized for the work he accomplished. I.e., democracy must respect his "utility" *within* the bounds of logic (a science considered integral to democracy by the ancient Greeks who pioneered both). Democracy is at last a serious business; even if 99% of *Mega* does want to wallow decadently in "psychological diversity", it cannot do so at the expense of more serious members.

Unfortunately, there is a generalizative tendency of human nature, "guilt by association", through which a little "psychological diversity" can go a very long way towards diverting all attention, and any possibility of recognition, away from those who might deserve it. For example, if you put the entirety of your democratic media under the control of someone given to front-page soliloquies on the less savory aspects of his personal biological functions, which will tend by natural psychological mechanisms to be mistaken for a generic label on content, then you're walking all over the rights of other members to be taken seriously. I didn't sign on for that, and no "democratic principle" says I did. Saying otherwise amounts to saying that if you were on a moving bus full of suicidal loons, and every other passenger voted "democratically" to let it go off a cliff, you wouldn't grab the wheel anyway. The moral of the story: illogic cannot be successfully "elected" over logic. Logic is the ultimate law determining the survival or non-survival of democracies, and any democracy which ignores this is doomed. This holds especially true for democracies whose members lack any knowledge of logic, even if they feel that their "high IQ's" exempt them from the tyrannical restrictions that logic imposes on their eccentric thought and behavior.

Thus, when you say that *Noesis* is uncensored, I'm not convinced. From my point of view, the delay or displacement of an urgent contribution by a full member of the Mega Society in favor of, e.g., Bob Hannon, is close enough to "censorship" to constitute a problem. As it happens, some very important Mega Society news recently suffered just this fate (the earlier postmark of Hannon's latest rantings seems quite beside the point, given their negative utility for any member of this group). Indeed, since I can't rationally publish new material on the CTMU in conjunction with his garbage, he has already successfully censored *me* out of *my own* journal... and just in time to suck up the MacArthur Grant Committee's \$400K!

Now for some miscellany. My *Noesis* 78 criticism of Ron's "hyper-philosophy" was simple: metaphysics asks questions like "OF WHAT is metaphysical reality composed?" Because metaphysical reality is the ultimate *form* of reality, the only possible answer can be: "OF metaphysical reality!" Because the answer is the same as the question, metaphysics must display a mathematical property known as *self-similarity*, in this case of a kind which allows metaphysical questions to have metaphysical answers. Ron answered the above question with what he called a "root metaphor", the *purposive act*. Unfortunately, the "purposive act" is explicitly defined in terms of human behavior, which - hare-brained as it usually is - is *not* a meaningful candidate for the end all-be all of reality. Sorry if you missed this - it's a key point of the CTMU (which Ron probably should have mentioned, since it reconciles purpose and action with the self-similarity constraint on metaphysical "root metaphors").

My opinion of LeRoy Kottke's intellect is a matter of record; in fact, I've been holding some fine material of his for publication. But having described a logical model of observation and induction, I can be expected to express myself in a manner consistent with my description. Your sharp distinction between cognition and "the instruments of knowledge contained in the body and emotions" doesn't

exist in the CTMU context; the CTMU generalizes "cognition" in such a way that it includes all "instruments of knowledge". As for LeRoy's usage of "exact and eternal", he applied these terms to the distinction between a *definition* and a *theory*. My point was to make him question this distinction by realizing that *exact* must be relativized to context and focus (e.g., "what is your *exact* age in years? nanoseconds? reincarnations?) and that *eternal* presupposes a transfinite structuring of time that only the CTMU can support.

You're quite correct that "Kevin Schwartz' critique of naive appeals to subjective experience...in support of free will...isn't the last word on the subject". In fact, subjective experience can, if *not* treated "naively", provide very powerful support for the idea of free will. That's because (a) you can't isolate subjective and objective aspects of reality from each other; (b) regardless of what the scientific method has to say about the need for objective verification, the fact remains that the subjective perception of free will distributes universally over "cognitive entities" like human beings, and whatever distributes nonrandomly over *any* coherent subset of reality *must* have a real basis. Of course, producing this basis requires mathematical analysis. If everyone's favorite charity case, Bob Hannon, hadn't helped squeeze my serious contributions out of *Noesis*, I'd get into the math right here. But for now, I'll just say that if free will is totally illusory, then the illusion is so pervasive that it enfolds objective reality by induction. Logical restrictions preclude cognitive access to any external "objective" reality in which this particular "subjective" illusion is resolvable; the inexorable question of *control* regresses to SELF-control at the systemic level of reality, thence distributing mathematically over subsystems in appropriate forms.

Incidentally, many people think that mathematics is unnecessary for the verbal analysis of philosophical issues. Well, to verbally describe anything, you need a *language*. Now, a language is a well-defined *mathematical* entity, and to understand its behavior on either the syntactic or semantical level, you have to acknowledge its mathematical structure. This is why I've long maintained in *Noesis* that mathematics is the "ultimate language"; all syntactic and semantical applications are ultimately matters of things like mappings and truth-tables, terms whose own relationships are logicomathematical in nature. Those who ignore the logical roots of language may be able to function in the quotidian world, but they can no longer hack it in the highly abstract world of metaphysics. For those in the know, the CTMU - the only possible universal self-descriptive mathematical language - forever dispels that illusion.

I shamefully admit my tendency to "argue from within castle walls" using "undigested neologism", but this *does* have its reasons. One thing I learned long ago is that you can't always wrap your mind around complex concepts like a big amoeba and digest them from the outside in; you sometimes have to wriggle inside them and digest them from the inside out. In fact, sometimes you have to do both at once. Please believe me when I tell you that I put *all kinds* of broad hints and deep tunnels into my contributions to make this possible for the motivated reader. Now if, despite a professed interest in metaphysics and reality theory, a given reader isn't

motivated enough even to notice these access points which have occasionally taken the form of neologisms designed to suggestively and enticingly compress a lot of useful information in a very tiny space - then I have to start wondering how smart he really is, and how long one should whip what looks like a stone dead mule. That only makes things worse; he whose previous efforts at clarity have seemed futile probably won't try as hard next time around, and his implied "arrogance" may discourage further attention by others.

Nevertheless, so impressed am I by the perspicuity of your remarks that I'm considering taking your advice and prettifying up my ideas. Of course, because I can't rationally do this in any journal which stoops to fits of stentorian lunacy (Hannon) or front-page fellatio (Rosner), and particularly not in a journal which stoops to *both*, this can only occur in the pages of an auxiliary journal which would probably end up being published at my personal expense (then again, *this* journal probably wouldn't be here had I not published issues 44-49 on a similar basis). Your wife was right; it's too late for *Noesis*. Besides, after five years of circulosity, I'm fed up with its glacial 6-10 month Q&A cycle. All I need to know is this: will *you*, at least, acknowledge such a journal, vouch for its exact contents, and if necessary, exhibit the *cajones* to stand by me should any writer, philosopher, mathematician, or physicist in or out of Mega make a dishonest play for credit? (I enclose a preprint already sent to Cole which outlines my proposal in more detail, along with another which provides background for this letter and may be of additional educational value to you.)

Consider what's at stake before you answer. As it stands, I win a Pyrrhic victory and you win nothing. But if you agree to secrete a little adrenaline on my behalf, there could be a *real* victory for all. Mega will at last begin to look authentic, and whether I like it or not, I'll have furnished you and Ron with a captive poster boy for high-ceiling untimed adult intelligence tests. I.e., what you have now is: "Hey, y'all I was scratching my piles and masturbating to fall asleep, contemplating the structure of the universe, when Many Worlds suggested lots of new places to wipe boogers. I call it *Metaboogers*. Chris and Dean ran a simulation... (you know who I mean). On the other hand; if we cooperate, what you may well have is a brave new world for Mega and somebody with enough mental firepower to defend it against all those mealy-mouthed, reverse-discriminating, IQ-hating hypocrites for whom it is nothing but a cancer on the rump of "The New Social Order." And best of all, the rest of mankind may finally have a chance to live down thousands of years of confusion regarding the profound logical connections that weld language, intelligence, and reality together.

If you wanted, you could obviously produce some useful input along CTMU lines, looking right sharp while making yet another meaningful contribution to the history of thought (before we get off the subject, a "WGA" is a *World's Greatest Authority*). Think it over. And thanks for complimenting both my creativity and my marked tendency to be "right about disputed details." It will enhance our reputation not only for kindness, but also for honesty and intelligence.

Chris Langan/P.O. Box 131/Speonk, NY 11972

### VERBAL ANALOGIES

All the answers to the 650 verbal analogies are given, so this is also, essentially, a reference section. Those wishing to try solving the questions will find none of the answers in any of the other sections of the book.

Supply the word, words or number, that best fits the analogy. The number of letters (or digits) in the required answer is given in brackets.

A : B :: C : D

It could be A is to B as C is to D

as in                    2 : Binary :: 10 : ?(6)

DE A is to C as B is to D

as in                    2 : 10 :: Binary : ?(6)

The answer, of course, is DENARY

### TEST 1

1. E.S.P. cards : Sener :: Ink-blots : ?(9)
2. Man : Woman :: Incubus : ?(8)
3. Spoken : Written :: Slander : ?(5)
4. Poun : Coast :: Oppidan : ?(7)
5. Ephany : Befane :: Langugural : ?(6)
6. First : Second :: Mishnah : ?(6)
7. Technetium : Francium :: Neaurium : ?(9)
8. Proclamation : Instruction :: Kerygma : ?(7)
9. 2,5 : 16,33 :: Ethyl : ?(5)
10. With : Without :: Aliquant : ?(7)
11. Romeo : Juliet :: Montague : ?(7)
12. Civic : Librarian :: Monastic : ?(8)
13. 1 : 10 :: Aleph : ?(3)
14. 3 : 2 :: Valisa : ?(9)
15. 1 : 16 :: Bell : ?(7)
16. 1 : 8 :: Kovats : ?(8)
17. 20 : 1 :: Skekel : ?(5)
18. 2 : 14 :: Syetyle : ?(10)
19. 10 : 9 :: Anker : ?(6)
20. 12 : 16 :: Salammunar : ?(9)
21. 1 : 60 :: Mina : ?(6)
22. 100 : 1 :: Carat : ?(6)
23. 15 : 13 :: Union : ?(6)
24. Wand : Kat :: Caduceus : ?(7)
25. 25 : 28 :: Christmas : ?(10)
26. 1 : 1/2 :: Pipe : ?(6)
27. 30 : 1 :: Thaler : ?(8)
28. I'm : An :: Prodellion : ?(6)
29. Universal solvent : Alkheat :: Mercury : ?(5)
30. Horn : Cernocopia :: Goat : ?(9)
31. Electrical capacitance : Farad :: Elastance : ?(5)
32. AABA : Limerick :: AAB : ?(8)
33. Nuolin : Tashnak :: Greek : ?(8)
34. Left : Nie :: Right : ?(5)
35. 1 : 40 :: Phon : ?(4)
36. Justice : Self-indulgence :: Aristides : ?(10)
37. Boy Scouts : Jamboree :: Australian Aborigines : ?(10)
38. 0 : Gmel : D : ?(6)
39. 5 : 6 :: Apatite : ?(10)
40. 60 : 20 :: Drachm : ?(7)
41. 1 : 1/2 :: An : ?(5)
42. Large : Small :: Protopathic : ?(9)
43. Ultimate : Tomelinate :: Perisponene : ?(15)
44. 2 : 4 :: Stannous : ?(7)
45. Oxford : Cambridge :: Commoner : ?(9)
46. Western Church : Lauds :: Greek Church : ?(7)
47. Homeless : Mecca :: Hindu : ?(8)
48. Roman : Nenter :: Hindu : ?(6)
49. Miracle : Natural :: Thaumategony : ?(8)
50. Bishop : Episcopal :: Suffragan Bishop : ?(15)

TEST 2

1. Watching : Veyeur :: Bodily smells : ?(9)
2. Jonson : Davenant :: Dryden : ?(8)
4. Blacksmiths : Dunstan :: Bricklayers : ?(7)
6. Bronx : Rasp :: Cheer : ?(5)
7. Love : War :: Benteen : ?(6)
8. English : Swiss :: John Bull : ?(5,6)
7. Man : Woman :: Anulona : ?(9)
8. Introduction : Prologue :: Conclusion : ?(8)
9. The Torchbearers : Noyes :: Gather Ye Rosebuds : ?(7)
10. Deductive : Inductive :: Appropriatic : ?(15)
11. Fear Gyns : Orlig :: The Forgotten Rite : ?(7)
12. Quich : Slow :: Friska : ?(5)
13. Roman Catholic : Rosary :: Mohammedan : ?(9)
14. Lying on oath : Perjury :: Influencing a jury : ?(9)
15. Next : Previous :: Lant : ?(6)
16. 2 : 1 :: Shekel : ?(5)
17. Sensed : Phenomenon :: Reasoned : ?(8)
18. Italy : Gondola :: Malta : ?(7)
19. Hermes : Bacchus :: Caduceus : ?(7)
20. Marriage : Digamy :: Coming of Christ : ?(8)
21. Group : Individual :: Phylogenesis : ?(11)
22. Good : Evil :: Ornaud : ?(7)
23. Ancient Egyptian : Hieroglyph :: Sanskrit : ?(10)
24. Past : Future :: Synthesis : ?(10)
25. Ectomorphic : Cerebrotonic :: Mesomorphic : ?(11)
26. Po'ible : Syncope :: Th'array : ?(10)
27. 2 : Systyle :: About 24 : ?(7)
28. Walk : Trot :: Canter : ?(6)
29. Sun : Earth :: Copernicus : ?(7)
30. Individual : Egotism :: Group : ?(6)
31. Humans : Blood :: Greek Gods : ?(5)
32. Platter : Grail :: Room : ?(7)
33. Without : With :: Enailism : ?(12)
34. Concord : Disceord :: Harmony : ?(9)
35. By chemicals : Corrosion :: By loose solid materials : ?(9)
36. Liquid to gas : Solid to gas :: Evaporation : ?(11)
37. Milton : Coleridge :: Shanghai : ?(6)
38. School : Church :: Tugel : ?(6)
39. Valour : Gallantry :: Victoria : ?(6)
40. Penitent : Impenitent :: Dymas : ?(6)
41. Donkey : Dapple :: Inland-city : ?(9)
42. Elephant : Maha-pudna :: Tortoise : ?(6)
43. Second son : Third son :: Crescent : ?(6)
44. Inductance : Henry :: Magneto motive force : ?(7)
45. 1 : 4 :: Bushel : ?(5)
46. Chlorine : Dichloro- :: Nitrogen : ?(5)
47. Integral : Decimal :: Characteristic : ?(8)
48. Flowers/seeds : Spores :: Phanerogam : ?(9)
49. Angle : Solid angle :: Radian : ?(9)
50. Chance : Charity :: Alsbatory : ?(12)

TEST 3

1. Man/horse : Centaur :: Man/asn : ?(10)
2. Self-dependent : Parent-dependent :: Praecocial : ?(9)
3. Goat/stag : Tragalaph :: Lion/dragon : ?(8)
4. Saanenhof : Jespersen :: Esperanto : ?(6)
5. Fox : Reynard :: Cook : ?(11)
6. 2 : 3 :: Penthemimer : ?(12)
7. Long, strong : Cobble :: Long, delicate : ?(5)
8. The Hay-Wain : Constable :: The Beloved : ?(8)
9. Pilgrim's Progress : The Tragic Muse :: Bunyan : ?(5)
10. Down : Up :: Inverted : ?(9)
11. Newcastle : Liverpool :: Goerdie : ?(6)
12. Cliff : Richard :: Harry : ?(4)
13. Cylinder : Book :: Vasculum : ?(8)
14. Ultimate : Oxytone :: Antepenultimate : ?(15)
15. Giants : Broddingnag :: Sorcerers, magicians : ?(12)
16. Female : Spindle :: Male : ?(5)
17. Yol'-forming cells plus ova : Heroistic :: Ova only : ?(9)
18. James : Stewart :: Stewart : ?(7)
19. Kitchen : Culinary :: Kitchen vegetables : ?(7)
20. 6 : 1 1/2 :: Well : ?(6)
21. Whole : Individual :: Vernation : ?(6)
22. Technetium : Maaorium :: Niobium : ?(9)
23. Circumference : Epicycloid :: Radian : ?(11)
24. Torrid : Acaian :: Temperate : ?(11)
25. Wild horses : Corral :: Wild elephants : ?(5)
26. Water : Vinegar :: Hydromel : ?(6)
27. State : California :: Chain : ?(8)
28. Scotland : Kilt :: Greece : ?(10)
29. Cambridge : Oxford :: Little-ge : ?(11)
30. Saudi Arabia : Harem :: Iran : ?(6)
31. B : S :: Gospel : ?(7)
32. Copenhagen : Hafnia :: Stockholm : ?(6)
33. Distance : Velocity :: Velocity : ?(12)
34. Elephant : Monkey :: Gannax : ?(7)
35. Bull : Lava :: Solifluction : ?(6)
36. Delta : Deltoid :: Upsilon : ?(5)
37. Civil : Pagan :: Treasurer : ?(10)
38. Medical : Decimal :: Lemniscate : ?(10)
39. Lights : Chanukkah :: Lanterna : ?(3)
40. Apples : Malic :: Popples : ?(7)
41. Hot : Cold :: Calderium : ?(11)
42. Sweet : Sour :: Salt : ?(6)
43. Australia : India :: Dingo : ?(5)
44. Sicily : Japan :: Hafnia : ?(6)
45. King Arthur : Excalibur :: Sir Lancelot : ?(9)
46. Finlandia : Sibelius :: Paris And Helen : ?(5)
47. Tailor : Dyer :: Sartorial : ?(10)
48. Animal : Bird :: Pygal : ?(8)
49. Bushmaster : Saruocan :: Anacanda : ?(8)
50. Birds : Deer :: Scarecrow : ?(6)

## TEST 4

1. Base : Laspeyre :: Current : ?(7)
2. I am/ I'm : Prodelition :: A new/ An ewt : ?(10)
3. Son, mother/father : Odipus :: Step-parents/step-children : ?(7)
4. Madame Bovary : Flaubert :: Peter Simple : ?(7)
5. Holmes : Sherlock :: Gulliver : ?(6)
6. Latin : Greek :: Venatic : ?(9)
7. Unleavened : Asymite :: Leavened : ?(9)
8. Sawu-song : Abude :: Cradle-song : ?(8)
9. Domenico Scarlatti : Kirpatrick :: Mozart : ?(6)
10. U.S.A. : Wall Street :: Canada : ?(3,6)
11. Falcon, hawk : Falconer :: Goshawk : ?(10)
12. Fellicamen : Feelers :: Bow Street Runners : ?(10)
13. The Card Players : Cezanne :: View Of Delft : ?(7)
14. Money : Parae :: Diamond : ?(5)
15. Wood : Shavings :: Diamond : ?(4)
16. Loose robe : Kincse :: Small ornament, figurine : ?(7)
17. Firmament : Indra :: Foresight : ?(6)
18. Hoofed : Hoofless :: Cleithral : ?(10)
19. Technetium : Promethium :: Neutronium : ?(8)
20. Leader : Don Godfather :: Code of silence : ?(6)
21. Clockwork model/Solar system : Orrery :: Magnetic model/Earth : ?(8)
22. Land Of The Rising Sun : Japan :: Cockpit Of Europe : ?(7)
23. Base Of Cone : Prustum :: Paraliologram, one quadrant removed : ?(6)
24. Bishop : Cronier :: Augur : ?(6)
25. Apollo : Bacchus :: Peaan : ?(9)
26. Boomerang : Kylie :: Hut : ?(6)
27. Chalasa : Chalazogenic :: Micropylle : ?(9)
28. End : Beginning :: Apoepe : ?(10)
29. Exterior : Interior :: Epicycloid : ?(11)
30. Circle : Compass :: Ellipse : ?(7)
31. P.M. : Deputy P.M. :: Talsnash : ?(8)
32. Daisies : Beets :: Sky : ?(6)
33. St. Basil : Basilian :: St. Jerome : ?(11)
34. Evil : Gaze :: Eye : ?(6)
35. Male : Female :: Compe : ?(7)
36. Car : Hotel :: Boat : ?(5)
37. Chat-Ranj : Chess :: Bagyatavay : ?(8)
38. North : South :: Cathay : ?(5)
39. Aurora Leigh : Elisabeth Barrett :: The Ring And The Book : ?(6)
40. Uranus : Herschel :: Pluto : ?(8)
41. Scarface : Al Capone :: Scourge Of God : ?(6)
42. Opposite : Adjacent :: Sine : ?(6)
43. Ceres : Winged Dragon :: June : ?(8)
44. Christian : Hell :: Hebrew : ?(5)
45. IO : Legion :: I : ?(6)
46. Inferiority Complex : Adler :: Collective Unconsciousness : ?(4)
47. Douglas-Hose : Wilson :: Khrushchev : ?(7)
48. 1033-05 : Gordon :: 1850-1916 : ?(9)
49. c1460-1524 : Gama :: c1480-1521 : ?(8)
50. East : West :: Ostro- : ?(4)

## TEST 5

1. DNA structure : Crick/Watson :: Blood groups : ?(11)
2. England : Ireland :: Parliament : ?(10)
3. Athens Of The North : Edinburgh :: Athens Of The West : ?(7)
4. Hall Mary : Ave Maria :: Lamb Of God : ?(5,3)
5. Brave New World : Huxley :: Stalky And Co. : ?(7)
6. Desired : Accustomed :: Wanted : ?(6)
7. Japan : Dist :: Iran : ?(6)
8. Magnitude : Magnitude and direction :: Scalar : ?(6)
9. Asurite : Copper :: Sphalerite : ?(4)
10. 1 to 18 : 19 to 36 :: Naque : ?(5)
11. Darker : Lighter :: Uebra : ?(8)
12. Sportsman/Athlete : Hearty :: Stodious person : ?(8)
13. Drink : Food :: Nectar : ?(8)
14. Wood : Chisel :: Brick : ?(7)
15. 6 : 4 :: Bere : ?(4)
16. Naps : Atlas :: Massee : ?(6)
17. Philippines : Magellan :: Brasil : ?(6)
18. Poland/Germany : Ashenatic :: Spain/Portugal : ?(9)
19. Iliad : Homer :: Ramayana : ?(7)
20. Dashers/Dandy-legged : Mikfi :: Stumblers /Bloody-browed : ?(5)
21. Text : Avesta :: Commentary : ?(4)
22. Book : Addendum :: Wall : ?(7)
23. Faithful Unto Death : Poyster :: Bacchaelian Festival : ?(7)
24. Utopia : More :: Le Bisanthropie : ?(7)
25. Female : Male :: Falcon : ?(6)
26. U.S.A. : Bald Eagle :: Indonesia : ?(6)
27. Oxford : Scout :: Cambridge : ?(5)
28. Magnetic Intensity : Isodynamic :: Osmetic Pressure : ?(8)
29. Roman Catholics : Transubstantiation :: Anglicans : ?(17)
30. No card higher than nine : Yarborough :: No card in in trumps : ?(7)
31. By conjunctions : By punctuation :: Hypetaxis : ?(9)
32. U.k. : U.S.A. :: Courgette : ?(8)
33. Lord Ribblesdale : Sargeant :: The Descent From The Cross : ?(6)
34. Weeping Saint : St. Swithin :: Weeping Philosopher : ?(10)
35. Arms And The Man : Shaw :: The Cask Of Amuntillad : ?(3)
36. Greek Mythology : Leda :: Irish Legend : ?(9)
37. Urin-drops : Reduplicated/Alcoholat :: Brunch : ?(11)
38. 32/212 : Fahrenheit :: 0/80 : ?(7)
39. With : Without :: Eukaryon : ?(9)
40. 1939 : Hurayer :: 1890 : ?(8)
41. H.L. de la Rasee : Ovide :: L.H.J. Vland : ?(4)
42. Picasso/Braque : Cubism :: Tsara/Arp/Ernst : ?(7)
43. Esther Waters : George :: Reclining Figure : ?(5)
44. Crick : Watson :: Strassman : ?(4)
45. Gamma : Eta :: Phocda : ?(6)
46. 4 October 1957 : 10 July 1962 :: Sputnik : ?(7)
47. Resistance : Ohm :: Conductance : ?(7)
48. Stan Pein : IRA :: Herri Batasuna : ?(5)
49. Left : Right :: Verse : ?(5)
50. France : Gondarce :: Ireland : ?(5)



TEST 6

1. Inferiority complex : Adler :: Stream of consciousness : ?(5)
2. 12 : 13 :: Fused alumina : ?(7,7)
3. Tuesday : Shrove :: Monday : ?(6)
4. 5 : 4 :: Sacral : ?(9)
5. Holyoake : Nash :: Holyoake : ?(8)
6. Power-loom : Cartwright : Spinning-jenny : ?(10)
7. Highest : Lowest :: Zenith : ?(5)
8. Coala : Newcastle :: Oels : ?(6)
9. Shank's : Pony :: Walker's : ?(3)
10. Without : With :: Acarpous : ?(11)
11. First : Second :: Freshman : ?(9)
12. Idylls of the King : Tennyson :: Tristram of Lyonesse : ?(9)
13. Elvis Presley : Graceland :: Michael Jackson : ?(9)
14. NCO's/Private : Stalag :: Officers : ?(5)
15. Elogy on dead fashion : Edith :: The thirteenth Caesar : ?(11)
16. Magnetic flux : Magnetic flux density :: Weber : ?(5)
17. Gentle : Ferocious :: Bastet : ?(7)
18. Bauxite : Aluminium :: Nitile : ?(8)
19. Picasso/Braque : Cubism :: Lewis/Pound/Wadsworth : ?(9)
20. BHA : Crick/Watson :: Sennese : ?(6)
21. 1930 : W101 :: 1937 : ?(10)
22. Trudeau : Clark :: Trudeau : ?(6)
23. Batons : Money :: Swords : ?(4)
24. Love and life : Watts :: The Marriage feast at Cana : ?(8)
25. Chloride : Common salt :: Carbonate : ?(7,4)
26. War and peace : Tolstoy :: Tristram Shandy : ?(6)
27. The Bard Of Aven : Shakespeare :: The Wizard Of The North : ?(5)
28. 1829 : Rocket :: 1814 : ?(7)
29. Ulyanov : Lenin :: Bronstein : ?(7)
30. Anti-Submarine : Detection :: Investigation : ?(9)
31. Chronicles Of Japan : Nihon Shoki :: Records Of Ancient Matters : ?(6)
32. Feorage : DeBrett :: Parliamentary proceedings : ?(7)
33. Greek : Elysium :: Irish : ?(3,3,2)
34. 1485-1936 : Of Aragon :: 1638-1705 : ?(2,9)
35. 20 July : St. Martha :: 15 October : ?(2,6)
36. Athens Of The North : Edinburgh :: Carthage Of The North : ?(6)
37. Service : Fee :: Changing money : ?(4)
38. U.L. : English Channel :: France : ?(2,6)
39. Cloty : Crossy :: Taka : ?(6)
40. Theory Of Evolution : Darwin :: Recapitulation Theory : ?(7)
41. Shavian : Shaw :: Cartesian : ?(9)
42. Steel bangle : Kara :: Short trousers for horse-riding : ?(6)
43. Applee : Stairs :: Whistle : ?(4)
44. 365.26 days : Earth :: 11.86 years : ?(7)
45. Passover : Pesach :: Pentecost : ?(8)
46. Book : Chapter :: Koran : ?(5)
47. Health : Joviality :: Baizoku : ?(5)
48. Hand : Orchestra :: Karate : ?(7)
49. Superman : Krypton :: Spock : ?(6)
50. 20 : 131 :: Nebuchadnessar : ?(8)

TEST 7

1. Bible : Noah :: Greek Mythology : ?(9)
2. Good win : Check :: Unsatisfactory draw : ?(5)
3. Coming together : Adjucent :: Separating : ?(8)
4. Consequent : Conditional :: Apodosis : ?(8)
5. North : South :: Borealis : ?(9)
6. Western Church : Abbot :: Greek Church : ?(15)
7. Teacher : Guru :: Wandering Ascetic : ?(5)
8. Upper : Lower :: Majuscule : ?(9)
9. Egypt : Pyramid :: Babylon : ?(8)
10. Northanger Abbey : Austen :: Lorna Doone : ?(9)
11. Scotland : Loch :: Ireland : ?(5)
12. The Dante Symphony : Liszt :: Schicksalslied : ?(6)
13. First : Second :: Seraphim : ?(8)
14. Outside : Inside :: Oviparous : ?(12)
15. Twenty : One :: Blank : ?(4)
16. France : Paris :: El Dorado : ?(5)
17. England : South Sea Bubble :: France : ?(11,6)
18. Middle finger : Medicus :: Wedding-ring finger : ?(8)
19. 66 : 100 :: Gunter : ?(8)
20. 12 : 8 :: Salmassar : ?(10)
21. Pellaea And Helianthe : Debussy :: Peter Grimes : ?(7)
22. Falling : Rising :: Bear : ?(4)
23. Peter Pan : Frampton :: Wima : ?(7)
24. Touching : Tangent :: Through : ?(6)
25. Southern : Northern :: Gondwanaland : ?(8)
26. Nitrazepam : Rogadon :: Chloridiazepoxide : ?(7)
27. Recording barometer : Barograph :: Tide-gauge : ?(9)
28. Durandal : Roland :: Frusbertin : ?(7)
29. In metal : On metal :: Champlevé : ?(9)
30. Peter & Porcupine :: William : ?(7)
31. First : Second :: Armstrong : ?(6)
32. 1781 : Uranus :: 1930 : ?(5)
33. 24 : 12 :: Iliad : ?(6)
34. Pilgrimage : Hadj :: Pilgrim's garb : ?(5)
35. Seller : Buyer :: Backwardation : ?(8)
36. Community : Cenobite :: Solitary : ?(9)
37. King Of Light : The Lord Of Treasures :: Melchior : ?(9)
38. Flaccus : Horace :: Nero : ?(6)
39. William Frederick : Cody :: Phineas Taylor : ?(6)
40. 1786-1836 : Crockett :: 1796-1836 : ?(5)
41. Bible : Henrik :: David : ?(4)
42. Aven : Eden :: Beaufield : ?(8)
43. Rome And Juliet : West Side Story :: Fyngalton : ?(2,4,4)
44. Wels : Igloo :: Igloo tunnel : ?(6)
45. Tina : Turner :: Anna Nae : ?(7)
46. Internal heat : Plutonian :: Water : ?(9)
47. Chronicles : Martian :: 451 : ?(10)
48. -2 : -3 :: Eagle : ?(9)
49. Expert : Judoka :: Suit : ?(6)
50. Hand, left arm : Phylatory : Doorpost : ?(7)

## TEST 9

1. Staircase : Escalator :: Pavement : ?(10)
2. vis : Videllect :: we : ?(8)
3. Water : Aqueous :: Land and water : ?(11)
4. French : Maginot :: German : ?(9)
5. Black : Blue :: Kichenganga : ?(9)
6. England : Googly :: Australia : ?(5)
7. Person : Family Tree :: Jesus Christ : ?(5,4)
8. High : Haute Couture :: Latest : ?(7,3)
9. 2 : 1 :: Deuterium : ?(7)
10. Women : Men :: Misogyny : ?(8)
11. English : Bless you! :: German : ?(10)
12. Cap : Ring :: Alberich : ?(5)
13. Pictin : Riboflavin :: R : ?(11)
14. Fourth son : Fifth son :: Marlet : ?(7)
15. Horse-riding : Equestration :: Swimming : ?(8)
16. Chastity : Galahad :: Treachery : ?(6)
17. Hydrated sodium sulphate : Glauber's :: Sodium potassium tartrate : ?(8)
18. St. Paul's Cathedral : Wren :: Canotaph in Whitehall : ?(7)
19. Knights : Chivalry :: Samurai : ?(7)
20. Lincoln : Garfield :: Polinsky : ?(7)
21. U.F. : Estate agent :: U.S.A. : ?(7)
22. North : Cismontane :: North : ?(12)
23. 52 $\frac{1}{2}$  : 105 :: Hopsheat : ?(4)
24. Nitric : Aqua Fortis :: Nitric/hydrochloric : ?(4,5)
25. 1 : 4 :: Acra : ?(4)
26. Sound : Navigation :: And : ?(7)
27. Cigars : Humidor :: Bow and arrow : ?(6)
28. England : Robin Hood :: Wales : ?(3,4,5)
29. Chop : Mutton :: Dreariness : ?(3)
30. 3 : 2 :: Sorrel : ?(7)
31. Latter-Day Saints : Mormons :: Society Of Friends : ?(7)
32. The Church At Vernon : Monet :: Le Bon Book : ?(5)
33. General Custard : Little Big Horn :: Sealots : ?(6)
34. Evangeline : Longfellow :: The Freepasser : ?(8)
35. Fair in face : Monday :: Loving and giving : ?(6)
36. Submarine : U :: Motor torpedo-boat : ?(1)
37. English : Waldensians/Waldenses :: French : ?(7)
38. Willing : Unwilling :: Volition : ?(8)
39. Father : Son :: Shek : ?(9)
40. Technetium : Astatine :: Masurium : ?(9)
41. pH : Acidity/alkalinity :: pC : ?(8)
42. Copper/gold : Shards :: Copper/silver : ?(9)
43. 8 : 10 :: Octopus : ?(5)
44. Library : Hneuss :: Bedlesian : ?(9)
45. Child after parent : Patronymy :: Parent after child : ?(9)
46. The Artist's Mother : Whistler :: Hammon : ?(5)
47. Earth : Navigation :: Space : ?(11)
48. Bald Eagle : U.S.A. :: Eagle/snake/cactus : ?(6)
49. Without : Obsession :: Within : ?(10)
50. Close parallel wires : Laid :: Fine wire gauze sieve : ?(4)

## TEST 9

1. Kiss : Osculation :: Flag : ?(10)
2. Side : Middle :: Lateral : ?(6)
3. Jesus : Buddha :: Nativity : ?(6)
4. Good : Bad :: Utopia : ?(9)
5. Irish in Ireland : Gaeltacht :: Gaelic in Scotland : ?(13)
6. Wood : Breast :: Sequoia : ?(5)
7. Ant : Termite :: Grouse : ?(9)
8. Run : Walk :: Cursorial : ?(10)
9. pH : Sereen :: pC : ?(8)
10. Ectomorphic : Cerebrotonic :: Endomorphic : ?(12)
11. Righteousness : Dharma :: Unrighteousness : ?(7)
12. White : Yolk :: Albumin : ?(8)
13. State : Collective :: Sovkhoz : ?(7)
14. World : Weltgeltik :: Fractional : ?(11)
15. Without : With :: Falsitate : ?(4)
16. Head : Wig :: Genitals area : ?(6)
17. Waiter : Gargon :: Wine waiter : ?(9)
18. Spicy sausage : Boerewors :: Barbecue : ?(10)
19. About 120 : About 59 :: Hadrian : ?(8)
20. China : 9 :: Liberty : ?(2)
21. Cybele : Liana :: Bacchus : ?(8)
22. Sense : Sensibility :: Elinor : ?(8)
23. minus 30 : Plus 30 :: Trade : ?(3)
24. 0 : 1 :: Boll : ?(7)
25. Leader : Jason :: Pilot : ?(6)
26. Down : Up :: Tires : ?(7)
27. First/middle/last : Acronitic :: Last : ?(9)
28. Simplicity and generosity : Pikelickian :: Unctuously hypocritical : ?(12)
29. Sell : Scaphic :: Desire : ?(11)
30. Puck/skate /skates : Ice-hockey :: Ball/brush/no skates : ?(9)
31. Land of : My Fathers :: Men Wind : ?(2,6)
32. I'm : Prodelision :: Thatway : ?(9)
33. Japan : Diet :: Mongolia : ?(6)
34. John, the first : John, the fourth :: The Great : ?(3,9)
35. First American : Nicholson :: First Woman : ?(8)
36. 1811-99 : Bunson :: 1755-1803 : ?(6)
37. First : Second :: Antecedent : ?(10)
38. Song : Serenade :: Basket, vinker : ?(8)
39. 1 : 2 :: Gallon : ?(4)
40. Britain : ATH :: U.S.A. : ?(3)
41. 1901-05 : 1933-05 :: Theodora : ?(8)
42. Charles Lamb : Elia :: Sidonia Gabriels : ?(7)
43. 82nd : 101st :: All American : ?(9,5)
44. Copper/ruby : Oliver Cromwell :: Golden : ?(5,5)
45. Gibraltar : Mount Sacho :: Calpe : ?(5)
46. Inferiority Complex : Adler :: Psyche-Physics : ?(7)
47. Jodelif or goblia : Robin Goodfellow :: Cal, Dickens wife : ?(3,9)
48. Neucy : Acay :: Bush : ?(5)
49. Cabbage : Patchers :: Yarra : ?(7)
50. Single stone : Monolith :: Wooden statue with stone extremities : ?(8)

TEST 10

1. Breakfast : Jentacular :: Honey : ?(6)
2. Rich : Poor :: Wealth : ?(5)
3. 12 : 11 :: Epom : ?(7)
4. A walk : A cool walk :: Promenade : ?(8)
5. ROH : RSH :: Alcohol : ?(9)
6. Red, Yellow :: Green, Brown :: Blue, Pink : ?(5)
7. Leo, the first : Leo, the third :: The Great : ?(3,8)
8. Athens of the North:Edinburgh :: Athens of South America : ?(6)
9. Japan : Diet :: Ethiopia : ?(6)
10. Polisher : Apple :: Spittle : ?(4)
11. D : C :: Dilution : ?(8)
12. Comb : Kangha :: Short sword : ?(6)
13. Inferiority Complex : Adler :: Behaviourism : ?(6)
14. About 171 : About 81 :: Suez : ?(6)
15. Olaf, the first : Olaf, the second :: Tryggvason : ?(10)
16. 89 : 1989 :: 87 : ?(4)
17. Away : Towards :: Effertent : ?(8)
18. Eighty years young : Antiphrasis :: More haste, less speed : ?(10)
19. Abel : Cain :: Harat : ?(6)
20. Blue : Azure :: Black : ?(5)
21. Mercury : Aloth :: Silver : ?(4)
22. Crossroads of the Pacific:Honolulu:Crossroads of the World : ?(6)
23. 7 Hills : Rome :: 100 Towers : ?(5)
24. Atmosphere : Barograph :: Blood : ?(9)
25. Vineyard : Vinegar :: String : ?(5)
26. Rouge Croix : Blusnatic :: Rouge Dragon : ?(10)
27. Ounce : Pound :: Wisdom : ?(3)
28. Pound : Ounce :: Care : ?(4)
29. 76 : 3.3 :: Halley : ?(5)
30. Scotland : England :: Multiplespounding : ?(12)
31. Wednesday : Ash :: Thursday : ?(6)
32. Generous : Mean :: Magnanimity : ?(11)
33. 14 : Stations of the Cross :: 79 : ?(6,8)
34. Bow : Yes :: Cricket-bats : ?(6)
35. Rain : 7 :: Fine : ?(2)
36. England : Dinner-jacket :: U.S.A. : ?(6)
37. Captain : Absolute :: Ensign : ?(8)
38. Nemo : Nautilus :: MacWhirr : ?(3,4)
39. Artful : Dodger :: John : ?(7)
40. Bear : Baloo :: Black panther : ?(8)
41. Peanuts : Arachidic :: Cashew nuts : ?(9)
42. Self : Egecentric :: Fame : ?(11)
43. Seal-skin boat : Kayak :: Seal's breathing hole in ice : ?(5)
44. Lesser : Ninayana :: Greater : ?(8)
45. Estate : The Press :: Discussion : ?(4)
46. Sisking : Lightning :: Siskrieg : ?(10)
47. 2-Headed/ 1-Bodied : Demodidyeus :: 2-Bodied/ 1-Headed : ?(7)
48. Bishop : Diocese :: Archbishop : ?(8)
49. Caru : Watercade :: Horusa : ?(9)
50. Tees : Digitigrade :: Soles : ?(11)

TEST 11

1. Red : Brown :: Rhodophyceae : ?(12)
2. Parallel : Perpendicular :: Stretcher : ?(6)
3. 4 : 4 :: Hip : ?(4)
4. Emperor : Jones :: Hairy : ?(3)
5. Red-to-blue : Litaua :: Yellow-to-brown : ?(8)
6. Chile : Saltpetre :: Cubic : ?(5)
7. North : South :: Castoris : ?(6)
8. The Swan City : Perth :: The City Of The Churches : ?(8)
9. Husbands : Bicornus :: Wives : ?(11)
10. Yes : No :: Eurythermous : ?(13)
11. Male : Female :: Iwanagi : ?(7)
12. Rock near battle : Naunachy :: Rock fight : ?(9)
13. Bow : Arrow :: Green-bow : ?(7)
14. Pylades : Orestes :: Damon : ?(7)
15. Short : Long :: Breve : ?(6)
16. Letter : Litaratin :: Word : ?(8)
17. 4July-11December,1653 : Barebones :: 5April-7June,1614 : ?(6)
18. Male : Female :: Oedipus : ?(7)
19. Positive : Negative :: Anode : ?(7)
20. Nature : Will :: Monophyite : ?(11)
21. Female : Male :: Bimbo : ?(5)
22. Pigeons' : Grass :: Juno's : ?(5)
23. Alexander The Great : Bucephalus :: Ogier The Dane : ?(10)
24. Humans : Blood :: Spiders : ?(7)
25. Russian : Tsar :: Japanese : ?(5)
26. Chinese : Susan-Fan :: Japanese : ?(7)
27. Rinaldo : Bayardo :: Orlando : ?(11)
28. Ounce : Pound :: Practice : ?(7)
29. Union : League :: Vallabies : ?(9)
30. Land and sea : Amphibious :: Land, sea and air : ?(11)
31. Beginning : End :: Big Bang : ?(3,6)
32. Carpenters : St. Joseph :: Cossedians : ?(2,5)
33. Charles Dickens : Bos :: Hablet K. Browns : ?(4)
34. Spear : Gidya :: Ayers Rock : ?(5)
35. Oup of mischief : Ralph :: Annual dinner, picnic : ?(9)
36. Ounce : Fact :: Ton : ?(6)
37. 1 : 20 :: Dinar : ?(5)
38. General : Dictionary :: Peats : ?(6)
39. Peanuts : Arachidic :: Chestnuts : ?(7)
40. Infant boy figure : Pottio :: Fancing pass, hit : ?(5)
41. Flit on cheering angel: Florence Nightingale :: Honor est a Uile: ?(7,6)
42. Superman : Krypton :: Dr. Who : ?(9)
43. Men : Ryder :: Women : ?(7)
44. Pye : Southey :: Wordsworth : ?(8)
45. See : Tide :: Lake : ?(6)
46. Nemo : Nautilus :: Allistoun : ?(9)
47. Horse : Bucephalus :: Bodyguard : ?(12)
48. Four of clubs : Devil's bodposts :: Nine of diamonds : ?(5,2,8)
49. room : Tabard :: John : ?(6)
50. Ialats : Crypts :: Langerhans : ?(10)

## TEST 12

1. HKS : Metre :: GFS : ?(4)
2. Y : Z :: A1 : ?(4)
3. Letter : Serif :: Signature : ?(6)
4. Peasle-Pharisees : Medinkia :: Strong-Shouldered : ?(6)
5. Ounces : Pound :: Discretion : ?(8)
6. Write : Agraphia :: Chew : ?(8)
7. Russian : Tea :: Dutch : ?(5)
8. England : St. George :: West Indies : ?(2,8)
9. Rinaldo : Bayardo :: Gabriel : ?(6)
10. More : Utopia :: Harrington : ?(6)
11. 1 : 4 :: Spindle : ?(4)
12. Red : Blue-green :: Rhodospirae : ?(12)
13. 1 : 3 :: Penultimate : ?(18)
14. Fair Maid Of Perth : Catherine Glover :: Fair Maid Of Anjou : ?(4,5,11)
15. 26 : 29 :: Rust : ?(9)
16. Shorthand : Stenographer :: Obituary : ?(12)
17. First/last letters : Acrostic :: Poem, initial letters : ?(11)  
reproduce first verse
18. h : Plank :: h/2pi : ?(5)
19. June : Peacock :: Plough : ?(5)
20. Turbo-jet engine : Whistle :: Gyroscope : ?(8)
21. Holmes : Sherlock :: Frankenstein : ?(6)
22. Unit of radioactivity : Curie :: Team of racing-cars : ?(6)
23. Care of young : Epimelitic :: Young animals to elicit : ?(12)  
epimelitic behaviour
24. Warm-blooded : Idiothermic :: Cold-blooded : ?(14)
25. St. Paul's Cathedral : Wren :: Banqueting Hall in Whitehall : ?(5)
26. Collects stamps : Philatelist :: Climbs outside of building for bet : ?(12)
27. Stone building in : Kaaba :: Sacred Well near Kaaba : ?(3,5)  
Great Mosque
28. Bible : Jephthah :: Greek Mythology : ?(9)
29. Top and bottom : Biking :: Boston only : ?(8)
30. Tightrope walker : Funambulist :: Striptease artist : ?(9)
31. Injected, weakened/killed : Salk :: Oral, weakened/live : ?(9)
32. 1945 : UNESCO :: 1946 : ?(6)
33. Youth fastening band round head : Diademena :: The Spear-bearer : ?(10)
34. Cambridge, 1777 : Halsean :: Oxford, 1780 : ?(7)
35. Aventine, Casilian : Capitoline, Esquilina :: Palatine, Quirinal : ?(7)
36. Liquid : Hydrometer :: Gas : ?(10)
37. Up : Down :: Acclivity : ?(9)
38. Frog : Tadpole :: Salasander : ?(7)
39. Plus 19 : Minus 15 :: Plus : ?(5)
40. 29 July : St. Martha :: 22 November : ?(2,7)
41. 6 : 5 :: Parr : ?(6)
42. Hole : son : Hatch :: Lowest score : ?(5)
43. The Batman's : Holding :: The Bowler's : ?(6)
44. Egoistic : Hobbes :: Altruistic : ?(4)
45. Great White Shark : Norman :: Walrus : ?(7)
46. Introduction : Proctasis :: Climax : ?(10)
47. 1,1,2,3,5,8,13.... : Fibonacci :: 1,3,4,7,11,18.... : ?(5)
48. ROH : RSH :: Alcohol : ?(5)
49. Hincea : Eyes :: Porikna : ?(4)
50. Professionals : Amateurs :: Ryder : ?(6)

## TEST 13

1. Andrew : Old Hickory :: Thomas Jonathan : ?(9)
2. Men Of The North : Astec :: Lord, Royal Person : ?(4)
3. White-robed : Svatambaras :: Naked : ?(10)
4. Liquid : Gas :: Solid : ?(6)
5. The Lionheart :: Richard, the first :: Lion Of The North : ?(8,8)
6. The Prodigal Son : Brittan :: Brigg Fair : ?(6)
7. Odysseus : Penelope :: Hercules : ?(8)
8. Jefferson, Franklin, Adams etc. : Independence :: Charles 2nd, James 2nd : ?(10)
9. Irish, Scots, Gaelic, Manx : Goidelic :: Welsh, Cornish, Breton : ?(9)
10. Enclosed : Angiosperm :: Not enclosed : ?(10)
11. General : Spinal :: Regional : ?(5)
12. In relief : Cameo :: Incised : ?(8)
13. Lullaby : Berceuse :: Gondolier's song : ?(9)
14. 2 : 1 :: Bactrian : ?(7)
15. 3 : 5 :: Perry : ?(4)
16. P.B.C. : I.B.A. :: Geefax : ?(6)
17. Lusp : Bolus :: Heap : ?(5)
18. Flytrap : Diogenes :: Girdle : ?(6)
19. Actor, indeed : Eddie Cantor :: In Lone Abode : ?(6,5)
20. Man : Vampire :: Woman : ?(5)
21. Cat : Kitten :: Ferret : ?(3)
22. Dry plaster : Secco :: Fresh damp plaster : ?(6)
23. Thick : Soft :: Pachy- : ?(6)
24. Dumb : Mute :: Deaf and dumb : ?(9)
25. Scraping boxes : Kyster :: Removing stones from bladder : ?(6)
26. Unavailable energy : Total internal energy :: Entropy : ?(9)
27. Telescope, measuring angles : Theodolite :: Electronic device, timing radio waves : ?(12)
28. Fatal flaw, hero, downfall : Nemertis :: Sudden change of : ?(10)  
fortune, usually bad
29. Polyonyalitis : Salk :: Smallpox : ?(6)
30. Up : Down :: Delta : ?(3)
31. Person : Psychologist :: Animal : ?(15)
32. Black : White :: Sublate : ?(5)
33. Up : Down :: Delta : ?(5)
34. Library Of Congress : Betts :: Ashmolean Museum, Oxford : ?(6)
35. 104 : 105 :: Kurchatovium : ?(12)
36. Crick : Watson :: Ramon y Cajal : ?(5)
37. Bible : Cain :: Greek Mythology : ?(9)
38. Man : Endemic :: Animals : ?(8)
39. Anything that can, : Murphy, God :: Bad money drives out good : ?(7)  
will go wrong
40. Auctioneer : Gavel :: Doctor, testing reflexes : ?(6)
41. Thick : Thin :: Pachy- : ?(5)
42. Blackthorn : Winter :: Peewits : ?(5)
43. Bars : Bars :: Pock : ?(4)
44. Sparrow : Passerine :: Flying-phantom : ?(9)
45. Ants : Hymenoptera :: Corpse, carrier : ?(12)
46. Suicide by starvation : Anorexia :: Diabolical treatment : ?(13)
47. Archbishops, Bishops : Lords Spiritual :: Lay Peers : ?(5,8)
48. J a.m. : G a.m. :: Gallinule : ?(9)
49. Excision of paper : Perforation :: Slitting of paper : ?(10)
50. Odysseus : Penelope :: El Cid : ?(6)