

# Noesis

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## Editorial

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God, Freedom, and Immortality: In the critique of Pure Reason Immanuel Kant contended that the three fundamental concepts with which metaphysics is perennially concerned are God, freedom, and immortality. He called them transcendental ideas because he felt that we cannot develop empirical knowledge of these concepts through scientific inquiry but must posit them out of some sort of inexorable intellectual necessity as a sort of precondition for having an intellectual life at all.

My own analysis suggests that these three concepts can be regarded as limiting concepts for epistemology, ethics, and aesthetics, respectively. Freedom emerges when we transform the fundamental ethical question "what should I do?" to the limiting question "what can I ultimately do?" Analogously, immortality emerges when we transform the fundamental aesthetic question "Will I be satisfied?" to the limiting question "Can I ultimately be satisfied?" For Kant regarded immortality as necessary primarily for the dishing out of the appropriate rewards and punishments, which are so obviously maldistributed in this life. And rewards and punishments in an afterlife are ultimate satisfactions (or dissatisfactions). Hence, immortality, like freedom, amounts to a limiting concept, only it is associated most immediately with aesthetics (the issue of satisfaction) rather than ethics (the issue of conduct). Finally, God emerges when we transform the epistemological question "Will my anticipations bear fruit?" or "Will my knowledge claims be true?" to the limiting question "Can my anticipations ultimately bear fruit?" or "Can my knowledge claims ultimately be true?" For we might say that the limit of possible knowledge is omniscience, and omniscience, if personified, is God. An atheist can, of course, dispense with the personification and simply speak of omniscience or even just of the limit of possible knowledge rather than of God. Likewise, one can speak of a limit to possible satisfactions without positing an afterlife, & thus one can drop the term "immortality," if one prefers, and simply speak of the limit of possible satisfaction.

Newcomb's paradox and cellular automata: The relevance of the foregoing remarks to the topics of Newcomb's paradox and cellular automata that Chris Cole has brought up in the pages of this journal and at the meeting of this Society in July is that I suspect that Chris is, in his own way, invoking these three Kantian issues. For Newcomb's paradox can be construed as playing off the power of individual freedom against the power of an omniscient being, while Chris's interest in cellular automata centers specifically on its potential for enabling us to create a sufficiently powerful artificial intelligence to enable us to solve the problem of how to achieve virtual biological immortality.

Chris might maintain that he was not deliberately trying to raise the issues of God, freedom, and immortality. My point is that he has nonetheless unintentionally raised them, if not intentionally, and they are clearly three of the most important issues in metaphysics, regardless of whether one views them from a theistic or atheistic perspective.

## Three Comments on Newcomb's Paradox

### (1) by Dean Inada

While noone was convinced to alter his original position, some common ground was found. Chris Cole was the lone heretic arguing for taking both boxes, his argument is presented below in his own words since my disagreement with its conclusions probably indicates that I don't understand it fully.

Some of us suspect that Chris may have been solving a slightly different problem from the one the rest were solving, perhaps one of variants in which we would also take two. For example, in most realistic real world situations, we would probably not be so deeply convinced of the predictor's reliability, and so the dominance argument would have more force.

(In a real situation, we might also consider the possibility of there being some trick, such that the boxes were actually be filled after the choice.)

Also, if it was very likely that would choose both boxes, then a high probability that x chosen, given that x is predicted does not necessarily imply a high probability that x is predicted, given that x is chosen. This may reduce the force of the expected value argument, particularly if there is an ambiguity in what it means to say that the predictor is reliable.

Most of us also seemed to be planning our strategy now, for a future decision concerning a yet to be made prediction by a yet to be certified predictor.

Were we presented with already filled boxes before the problem was presented for discussion, it is possible that some of us may have been inclined differently.

(Besides the causality problem, it might have affected our assesment of the in the predictor's reliability.)

Keith Raniere points out that, under the assumptions of the problem, it may be misleading to say "which should I choose", any observer might think you were bound to follow prediction. It might have been interesting to have seen the non-reverse causality argument challenged in light of Zeno's "time is an illusion" ideas as elucidated by Ron Hoeflin.

Or in light of James Hajicek's suggestion that the only observable universe is the one in which the observer lives forever. (The only outcome of interest to Schrödinger's cat is the one in which the atom does not decay)

### (2) by Chris Cole

From chris Fri Jul 8 23:55:43 1988

Received: by peregrine.COM (4.12/small2.5/09-24-87)

id AA24235; Fri, 8 Jul 88 23:55:42 pdt

Date: Fri, 8 Jul 88 23:55:42 pdt

From: chris (Chris Cole)

Message-Id: <8807090655.AA24235@peregrine.COM>

X-Mailer: Mail User's Shell (6.3 6/25/88)

To: dmi

Subject: Newcomb's paradox - my best argument so far

Status: RO

You are presented with two boxes: one certainly contains \$1000 and the other might contain \$1 million. You can either take one box or both. You cannot change what is in the boxes. Therefore, to maximize your gain you should take both boxes.

However, it might be argued that you can change the probability that the \$1 million is there. Since there is no way to change whether the million is in the box or not, what does it mean that you can change the probability that the million is in the box? It means that your choice is correlated with the state of the box.

Events which proceed from a common cause are correlated. My mental states lead to my choice and, very probably, to the state of the box. Therefore my choice and the state of the box are highly correlated. In this sense, my choice changes the "probability" that the money is in the box. However, since your choice cannot change the state of the box, this correlation is irrelevant.

From chris Thu Jul 2 21:58:25 1987  
Received: by peregrine.peregrine.com (4.12/5mail2.2/5-15-87)  
id AA00812; Thu, 2 Jul 87 21:58:22 pdt  
Date: Thu, 2 Jul 87 21:58:22 pdt  
From: chris (Chris Cole)  
Message-Id: <8707030458.AA00812@peregrine.peregrine.com>  
To: dmi  
Subject: Newcomb's Paradox  
Status: RO

When I first heard of this paradox, I too argued strongly for opening only box B. This is what makes this an interesting paradox, at least for me. I think the amazing thing about this paradox is how easy it is to confuse ourselves with arguments for opening only box B. I was very confused, so I assume it is easy. My argument was essentially that I could "force" the being to put the million in box B by deciding to pick box B. I also used words like "cause" or "determine" instead of "force". However, the plain fact is that you cannot force anyone to do anything in the past. The past is done and over with -- you cannot change, determine, cause, or force it. Therefore, there is no reason to leave the thousand in box A. You might as well take it. What is in box B is not going to change. One might argue that if you are the type of person who argues this way, then the being will know it and leave box B empty, so that if you are the type of person who understands this and opens only box B, then the being will know this too and will put the million in box B. Of course you can try to fool the being, but if we assume that the being can follow all of your reasoning until you have to decide, then fooling the being is out of the question. The paradox is no fun if we assume you can fool the being. So we come to the conclusion that we can "force" the being to put the million in box B by being the kind of person who decides to pick only box B.

At least this is my best formulation of the argument for picking box B. Now, suppose we are actually standing in front of the two boxes and trying to decide. Suppose the boxes are transparent. Now we see either one million or nothing in box B and one thousand in box A. What should we do? Presumably, you agree we should pick both boxes. If you do not, I will have to discuss this with you. So, assuming you do agree you would pick both boxes, I now want to know why you would pick only B if the boxes are opaque. You might argue that the paradox makes no sense if the boxes are transparent, but this is not a real argument because I am only asking what you would do IF the boxes were transparent to point out that you would open both boxes. If you would open both under this condition, how can you possibly justify opening only one if you have less information? In fact, I argue that the paradox makes perfect sense with transparent boxes. After all, what about the above logic assumes that you cannot see what is in the boxes? Suppose that you dogmatically decide to open only box B. Wouldn't that guarantee that there would be a million dollars in it? Well, it might ... but when it actually comes down to picking, you would be pretty hard pressed to argue that it makes any sense to forfeit the easy pickings in box A. After, what's in box B isn't going to suddenly disappear as you open box A, unless you believe in magic. The point is, no matter what type of person the being thinks you are, the being made its decision and left the money. You CANNOT change that. When it comes time to pick, you only forfeit money by picking only B. If this is still confusing, you might want to consider the case where the boxes are opaque, but you have a friend peek and write down what you should do. Then you pick and check if you did what he wanted you to do. Since you know he will always write down that you should pick both boxes, why bother him. Why not just pick both? This paradox reminds me of the other self-referential paradoxes. The basic problem is a meta-level versus level crossing. The exact analysis of this crossing is not clear to me, or I would explain it to you, which would probably be better than all this talk above. It is similar to "this sentence is false". If you can figure out the levels involved, please let me know. This is probably worth a paper in a philosophy journal, or at least a letter to Robert Nozick at Harvard, who introduced me to the paradox.

### (3) by Keith Raniere

Two occurrences are either coincidental or causal (correlated). Occurrences are coincidental if they have no mutual causes. Causes are judged by physics; "A causes B" means we have a physics to explain B using A. We form our physics by noting repeated occurrences and forming hypothesis to explain them. Our physics is only as good as its predictive validity based on past consistencies.

If one observes 100,000 consecutive quarter flips that are heads, although theory assigns a .5 chance for the next flip to be heads, we might hypothesize a 2-headed quarter or some other physics to explain our observation and modify the theorized probability. A new physics is formed (an old one violated) based on both number and value of occurrences. In other words the number of occurrences needed to violate our physics is a function of the value of our physics... if one is guessing a coin flip preceded by ten heads, they are more inclined to doubt their physics if there is money involved.

For the purpose of discussing Newcomb's paradox, I am going to simplify it into a 3 step process. Step 1, the determination, is the point that the being makes its decision on the participant's behavior. Step 2, the commitment, is the participants final choice (one or both boxes). Step 3, the result, is the outcome of the participant's trial. By the statement of the problem the determination and the commitment are correlated (certainly the being has some sort of physics to make the determination). This means that they have some common cause. The determination is chronologically before the commitment, this implies any common cause must be at or before the determination (or else we see reverse causality). In either case the commitment, by the established physics, is predetermined (either the determination causes the commitment - a bug planted in the brain perhaps - or they are mutually caused). This means the statement of the paradox contains an inherent flaw, the assumption that the participant has a choice at the commitment point when actually his/her choice was made at or before the determination. The question "what would you choose to do" is misleading and inappropriate.

Suppose the determination were made on color-blindness and if someone were not color-blind they could see both boxes, or else they could only see the "opaque box". This is equivalent to the paradox (up to the physics of determining color-blindness) and we can see that the individuals are forced to do that which is predetermined. If one were to ask a person what choice they would make, they would answer that there is no choice.

Like the "chicken and the egg" paradox, Newcomb's paradox is poorly stated. In the "chicken and the egg" paradox the answer is the egg - for all chickens come from eggs, but not all eggs come from chickens. This paradox should be rephrased as "which came first, the chicken, or the chicken egg". Newcomb's paradox should be restated as "can one make an absolute determination (up to physics) on choice without taking away choice".

Everybody agrees to take both boxes if there is no history given on their preparation. But the people who stay with that choice no matter what the value of the choice, or the number of previous data points deny the possibility of forming another physics. To say this is to use physics to deny the formation of physics. How was any of our physics formed in the first place?

If we place the elixir of life in the opaque box, in place of the million dollars, and change the \$1000 to \$1, we can shed a different light on the problem. If one of the "two-boxers" were sitting in the audience watching the much valued elixir being distributed to many one-boxers at a loss of only \$1 (including his/her friends who come smiling back to their seat), I bet that the situation would transform many a two-boxer into a one-boxer. If it didn't, eventually the one-boxers would be proven correct by longevity.

If we look at the Newcomb "choice" in a different way, we are offered the "choice" then, just as we are walking out the door, we are told of the boxes' preparation. Some of us will realize that, at this point, nothing can change the content of the boxes. By our current physics we should take both... but... it's possible that the attractiveness of reverse causality may render us temporarily insane resulting in our walking out with only one. Another possibility is that some inexorable force will pull the second box from our hand. The easiest conciliatory answer is to recognize, in all practicality, that

the being never puts money in the opaque box and is therefore always correct. I guess the paradox should include the fact that the being has chosen correctly for thousands of people of both persuasions. To prove this point; If I gave someone the Newcomb offer, I would have no trouble guessing their "choice".

Another thought is whether we can figure out the determination. We live under the possible illusion of free choice. Newcomb's paradox sets up a physics where we are unable to choose (at least after the determination). The question is can we witness the inability to choose ie, Keith jumps off a building and notes "Keith is falling...". If there exists a method to determine what our "choice" will be, then we (or someone) should be able to ascertain the being's determination. Such a person would do one of three things when presented with the Newcomb offer: 1) Forget his/her information, never having it occur to him/her to take both boxes... "Oh gee I don't know what got into me..." 2) Watch him(her)self make the "choice" no matter what he/she thinks... "I'm falling" 3) Choose both boxes.

Note: The 2-boxers confess no expectation as to what is in the opaque box (if they did, they would either go contrary to previous data or end up expecting more from taking 1 box) - independent of the previous happenings. What makes such a person think they can come up with an expectation of their behavior after the determination? If we don't have an understanding of the method of determination, then the only accurate answer to the question of what we would do is "I don't know"... much like the expectation of what is in the opaque box.

To summarize my thoughts:

- 1) There is no choice at the commitment point. This is indicated by the physics of the problem.
- 2) The being either causes our behavior, or evaluates our physics function (that which causes us to form new physics... a function of value, and number of data points).
- 3) A rigorous statement of Newcomb's paradox should contain (if it doesn't already) something like "the being has predicted both types of behavior correctly".
- 4) One can't have an expectation of which option they would choose.

**Editor's note: For greater legibility, I urge anyone submitting material for Neosis to use large, clear type.**

# Troy man has a lot on his mind

IQ test proves what many suspected:  
He's one in 10 million

**By Irene Gardner Keeney**

Staff writer

**Y**ou might say that Keith Raniere is one in a million.

He's a member of Mega, a high-IQ society with a minimum requirement at the one-in-a-million level.

Actually, the 27-year-old Troy resident is in an even more exclusive category. By answering correctly all but two questions on a 48-question, self-administered test, Raniere moved up to the rarified one-in-10-million level. To qualify for membership in the Mega Society, aspirants must answer correctly at least 45 questions. According to the society, that corresponds to an IQ of 176 or more. People of average intelligence, by contrast, have IQs that cluster around a score of 100.

A number of IQ societies go beyond Mensa, the well-known organization limited to the top 2 percent of the population, or those who score higher than 132 on a standard Stanford-Binet intelligence test. Each of these little-publicized societies is more selective than the next.

The mastermind behind many of them is Ronald K. Hoeflin, philosopher and librarian, who has made an avocation of forming increasingly more elite clubs for geniuses such as himself (he has an IQ of 150).

Hoeflin says curiosity about his own IQ led him in 1969 to join the Mensa Society. Six years ago the New York City resident founded Mega. After it grew to include 28 members — and lost some of its exclusivity — he restructured it to include only two persons, Eric Hart of Long Island and Marilyn vos Savant of Missouri. Raniere is the most recent member. All three will be listed in the next issue of the *Guinness Book of World Records*.

(vos Savant, who writes the "Ask Marilyn" column for *Parade Magazine*, is listed in the record book as the woman with the highest IQ. Last August, Savant, whose surname means "learned person," married Dr. Robert Jarvik, inventor of the Jarvik 7 artificial heart.)

Geniuses, apparently, are born, not made. Raniere says he was identified early as a bright child. By age 2 he could spell the word "homogenized" from seeing it on the milk

Carlton. He was precocious in math development and says he had an understanding of subjects such as quantum physics and computers by age 4.

By the time he was 16, the Brooklyn-born genius says he had exhausted the curriculum at his high school. He dropped out of school and entered RPI where he simultaneously earned undergraduate degrees in math, physics and biology. To do that he had to take 60 credits in addition to the 124 credits required for a single major. RPI spokesman Matt



### **KEITH RANIERE** ... joins exclusive Mega Club

McGuire termed Ranieri's three degrees "an extremely rare accomplishment."

Currently, Ranieri works for the state and is an independent educational consultant.

He's not your stereotypical genius. Watchful blue eyes look out from behind aviator glasses. His brown hair is parted stylishly in the middle. He has the physique of an athlete, which he is. He was East Coast Jude

champion at age 12, tied with the state record for the 100 yard-dash, is an avid skier, swimmer and wind surfer. He says he plays seven musical instruments and also sings "high tenor" in local musical productions.

He also rides a unicycle and likes to juggle — not necessarily at the same time — but one gets the impression that this amazing young man, who requires only two to four hours of sleep, could do both — if he put his

mind to it.

The questions aspiring members of the Mega Society have to answer are real brain busters. Ranieri says they took him two weeks.

"There's no enforceable time limit. Some people take up to a year to answer the questions. It's suggested you limit yourself to no more than one month," he explains.

Unlike with some tests, applicants are encouraged to use such reference

aids as dictionaries, thesauri and pocket calculators, he says. Guessing is permitted. There is no penalty for wrong answers or guesses so guessing is advantageous.

Assistance from others, however, is prohibited. "Not," says the young genius, "who would give you assistance?"

Who, indeed.

## Try this one-in-a-million test

Some of the questions Keith Ranieri had to answer to qualify for membership in the Mega Society appear below. Try them and see how well you do. Don't look here for the answers, however. They are never published.

"You could not be admitted to any of the societies if the answers were published," he said.

### THE ONE-IN-A-MILLION IQ TEST

A verbal analogy asks:

1. Heel is to Achilles as box is to \_\_\_\_\_?
2. Teeth is to hen as nest is to \_\_\_\_\_?
3. Winter is to hibernate as summer is to \_\_\_\_\_?

A spatial problem poses the following question:

*What is the maximum number of completely bound volumes that can be formed by three interpenetrating cubes, considering only the surfaces of the cubes as bounds and counting only volumes that are not further subdivided?*

A numerical problem:

*A crystal consists of 100,000,000 layers of atoms such that there is one atom in the first layer, three in the second, six in the third, 10 in the fourth, 15 in the fifth, and so forth. Exactly how many atoms are there in the entire crystal?*

If you think you might qualify for membership in the Mega Society, contact Hoeflin Research Group, P.O. Box 7430, New York, N.Y., 10118.

from the Sunday Times Union (Troy, N.Y.)  
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