

```

*   *****   *   *   *****   *   *   *****   *   *   *****
*   *           *   *   *           *   *   *           *   *   *
*   *****   *   *   *****   *   *   *****   *   *   *****
*   *   *       *   *   *   *       *   *   *   *       *   *   *
*   *****   *****   *****   *   *   *****   *   *   *****

```

News of the International Society Of Unified Science, Inc.

---

FOURTEENTH ANNUAL ISUS, INC. CONVENTION August 11-12, 1989 Portland, OR  
 -----  
 Volume III, Number 1 Winter, 1988-1989

Nor is time a mysterious illusion of the intellect. It is an essential feature of the universe. G.J. Whitrow, Natural philosophy of Time.

Dost thou love life? Then don't squander time, for it is the stuff life is made of. Benjamin Franklin, Autobiography.

In the .maxim..that space and time are infinitely divisible, we pass to an axiom the truth of which is extremely doubtful, even in the physical world. George Santayana, The Realms of Being.

---

	PAGE
Editorial about THE RECIPROCAL SYSTEM ___NOT BAD	1
ANNOUNCEMENT:FOURTEENTH Annual ISUS CONVENTION, August 11-12, 1989	2
Letter of Professor J.Edward Anderson to Dr. Lawrence R. Sulak, Chairman, Physics Department, Boston University, October 29, 1988	3
LETTER OF Professor Ed Anderson to Dr. Arthur G.B. Metcalf, Boston University Board Chairman, November 2, 1988	5
Letter of Frank Meyer to Professor Abner Shimony, Professor of Physics and Philosophy, Boston University, December 29, 1988	6
Letter of Prof. Shimony to Mr. Frank Meyer, January 15, 1989	7
Letter of Professor Shimony to Professor Larry Sulak, Chairman, Physics Department, Boston University, October 31, 1988	8
Letter of Ronald W. Satz to Professor J. Edwar Anderson, November 15, 1988	10
Letter of Dr. K.V.K. Nehru, Professor in Mechanical Engineering, J.N.T. University, Hyderabad, India, December 20, 1988	13
Letter of Lawrence E. Denslow, Teacher and Member, ISUS Board of Trustees, to Prof. Frank H. Meyer	16
NEWS about Matching Grant to ISUS, INC. from St. Paul Companies	12
REQUEST from Edwin Navarro, ISUS Membership Director, about future publication of an ISUS Membership List	18
ISUS MEMBERSHIP and SOME AVAILABLE LITERATURE ABOUT THE RECIPROCAL SYSTEM OF PHYSICAL SCIENCE	19

IGNORANCE ABOUT MOTION IS IGNORANCE OF NATURE

## NOT BAD

Is the Reciprocal System(RS) of physical science a bad system of scientific theory and practice? We suggest that, as an original theory, it is bad ONLY to those who dismiss it summarily without examination.

Quantum mechanics(QM) and quantum electrodynamics(QED) are not all bad, even though they hardly explain between them everything physical found in our living existence. At least, Quantum physics(QP) focuses on what not so long ago was complacently denied by generations of physicists and natural philosophers: that most, if not, all the primary and the derived constituents of the physical universe are finitely, rather than infinitely divisible.

Relativity theory(RT) is not at all bad, even when it fails to disclose the why and how of the finite divisibility of the most essential constituents of the physical universe: motion, time and space. Nevertheless, RT endeavors to focus on the evident continuity and difference between relatively slow motions and the relativity fast motions, particularly when and where the speed of light always and ubiquitously occurs.

RS ACCOMPLISHES what neither RT nor QP does. From its definition of motion as the relation between two uniformly progressing reciprocal quantities, space and time, RS discloses that each individual unit of motion is the relation between one unit of space and one unit of time, motion at unit speed. By identifying the speed of light as the absolute magnitude of the unit speed of the uniform three-dimensional progression of both space and time, RS at once accounts for three mathematically but not physically resolved dilemmas of modern physics: 1. why and how the photon of light is both a particle and a wave of motion; 2. why and how the velocity of light is absolutely independent of the rates of motion of source, receiver and/or inertial reference systems; and 3. why and how the physical universe is an 'expanding universe', as postulated by the astronomers. As against the RT claim that time, space and motion basically are relative, RS shows why and how clock time and clock space components are absolute, while only coordinate time and coordinate space components may properly be regarded as relative. RS REVEALS another kind of existing motions--scalar motion, just as important as the vectorial motions of our ordinary experience, in which direction is a specific and inherent property of the motion. Scalar motion has no inherent direction, since it is distributed uniformly over all directions. Prominent examples of scalar motion are outward three-dimensional space-time progression and inward three-dimensional gravitational motion.

Similarly, RS answers often asked questions: What is electricity, electric charge, electron, positron? Why and how is the atom, mass, gravitational motion, matter, 'anti-matter'? RS answers YES to the question whether a preferred reference system exists and can be found in the physical universe to distinguish & relate absolute motion and relative motion?

NOT BAD for the Reciprocal System(RS) in comparison with the Relativity Theory(RT), Quantum Mechanics(QM), Quantum Electrodynamics(QED)!

IGNORATO MOTU IGNORATA NATURA

MUCH IS AWESOME BUT NOTHING MORE AWESOME THAN WOMAN

IN THE MAXIM...: THAT SPACE AND TIME ARE INFINITELY DIVISIBLE,  
WE PASS TO AN AXIOM THE TRUTH OF WHICH IS EXTREMELY DOUBTFUL, EVEN IN THE  
PHYSICAL WORLD.--George Santayana

1 9 8 9 I. S. U. S. Convention

The 14th Annual Convention of the International Society of Unified Science (ISUS) is scheduled for August 11-12, 1989, in Portland, Oregon. This year marks Mr. Larson's 90th year and the 30th year since his first book on the Reciprocal System was published.

The headquarters will be in the Jade Tree Motel which is close to Mr. Larson's house. The conference will begin at 9:00 a.m. Friday morning, the 11th in the Jade Tree's conference facilities and run Friday and Saturday, with the ISUS business meeting late Saturday afternoon. There will be a social gathering Friday night at the Larson's. And a banquet dinner Saturday night. Thursday night will be an informal get together for those who arrive early enough.

A block of rooms has been set aside for ISUS. Reservations should be made by July 1 and can be held with a \$10.00 deposit. The deposit is fully refundable with 48 hours advance notice, so make your reservations early, directly with the Jade Tree, if there is a chance you will be able to attend so you can stay in the headquarters location. For reservations or lodging questions contact Mrs. Wanda Strong, Manager, Jade Tree Motel, 3939 NE Hancock, Portland, Oregon 97206 Phone: (503) 288-6891

The location of the Jade Tree, one block off a major street, is convenient and quiet. Access is good from the airport by Taxi, rental car or city transit bus. Stores, city services and restaurants are within easy walking distance. Daily room rates are with: two twin beds \$37.06, a single queen bed \$33.79, a single king bed \$40.33, a two queen bed suite \$45.78.

Rooms can be shared. Phillip Porter, P.O. Box 999, Englewood, Colorado 80151 will act as a clearing house if you want to find an ISUS room mate. Send in your reservations to the Jade Tree by July 1st and send a stamped, self addressed envelope with your contact phone numbers to Phil by July 5th. Phil will compile a list of all who respond and mail it back in your envelope by July 20th.

This will give you time to make your own roommate contacts and cancel duplicate room reservations. Please note if you might want to arrive early or stay late and site see, share a rental car, have bus information, etc. and we will attempt to get that information for you.

Boston University

College of Engineering  
110 Cummington Street  
Boston, Massachusetts 02215  
617/353-2814

Department of Aerospace  
and Mechanical Engineering



October 29, 1988

Dr. Lawrence R. Sulack  
Chairman  
Department of Physics  
590 Commonwealth Ave.

Dear Professor Sulack:

It has been about a month since we had a brief discussion about the possibility of inviting Dewey Larson to a Physics Seminar at Boston University.

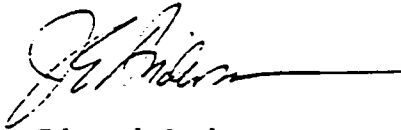
While I haven't had the opportunity to study Larson's theory in enough detail to be a strong advocate, I have studied it enough and have read and talked to enough others to believe that Larson may well have an approach worthy of the attention of the physics community. I enclose several reviews of Larson's books by scientific journals.

As I understand it, Larson developed his framework of physical theory, which he calls the Reciprocal System, out of extensive analysis relationships between properties of matter, much of it in the study of crystalline material. After decades of work, he began to see that the relationships could be understood only on the basis of a new view of space-time, and that all could be derived from two fundamental postulates, stated in the enclosed review by David Halprin. Over more decades, Larson found that, without the aid of any supplementary or subsidiary assumptions, and without bringing in anything from experience, he could produce a complete qualitative and quantitative description of the basic features of the physical universe from the depths of the atom to quasars and black holes.

The fact that, while much has been written by and about Larson and his Reciprocal System, it has not yet become generally accepted by the physics community, is not necessarily surprising. From what I have read thus far, thorough study of his work requires at least three attributes in one very intelligent person: a willingness to expend a great deal of intellectual energy with no guarantee of success, the humility to set aside what one "knows" long enough to follow through on the new ideas, and the emotional strength and self confidence needed to resist possible admonishments of colleagues who would dismiss the new ideas based on cursory analysis.

While not a physicist myself, I spent most of my time as a doctoral student at M. I. T. studying physics, particularly relativity theory and quantum mechanics, out of interest in understanding how the physical world works, and I have been most interested in following developments in physics through the years thereafter. I am aware that a number of top physicists have commented that fundamentally new ideas are needed and that, while modern physics can calculate a remarkably wide range of phenomena, a unifying theory is still a mystery. Dewey Larson, as an uncommitted investigator outside the cultural domain of physics seems quite possibly to have developed such a theory. If he is correct, and there is a whole organization of people called the International Society of Unified Science that believe he is, he must go down in history as perhaps the greatest scientist of all time. I urge you to give him a hearing.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. Anderson", with a long horizontal flourish extending to the right.

J. Edward Anderson  
Professor

encl.

Boston University

College of Engineering  
110 Cummington Street  
Boston, Massachusetts 02215  
617/353-2814



Department of Aerospace  
and Mechanical Engineering

November 2, 1988  
Dr. Arthur G. B. Metcalf  
Electronic Corporation of America  
265 Winter St.  
Waltham, MA 02154

Dear Arthur:

I heard from Professor Sulack today. He gave the material on Larson's theory to Professor Abner Shimony with the enclosed response. Sulack has invited me to lunch with the two of them, with the purpose, I assume from the letter, to tell me why Larson is wrong, based on Salz's book.

Having studied relativity theory a good bit, I am surprised by his remark that "if one frame is accelerated relative to an inertial frame ..." There is absolutely nothing in special relativity about accelerated frames--it is pure kinematics. That has been one of the troubles with it. One can introduce acceleration in general relativity, and, in a special course at M. I. T., I was able to solve the clock paradox in general relativity. Also, Shimony's treatment of relativistic mass skirts around the concern Larson had, i.e., that in looking at  $F = m a$  with  $a$  approaching zero as velocity goes to the speed of light, Einstein assumed that in the ratio  $F/m$ ,  $m$  increases relativistically and  $F$  is invariant. I noted in my copy of Einstein's paper that I had noted in the margin that he did not discuss why his choice. Larson has argued that from his basic postulates that he has shown that  $F$  goes to zero rather than  $m$  going to infinity.

This is all very interesting, but I haven't the time to try to argue with the physics department, and really acted in the role of an intermediary rather than an advocate of Larson's ideas. I don't think Shimony has given Larson's theory a good shot, arguing from a different treatment, but I also think that Larson should have found a way to lead people a bit more gradually to his ideas. The burden is on the promoters, and I have no time to be one.

With best regards,

encl.

# INTERNATIONAL SOCIETY OF UNIFIED SCIENCE

1680 East Atkins Ave Salt Lake City, Utah 84105  
193 South Windsor Street

Professor Abner Shimony  
Professor of Physics and Philosophy  
Boston University  
590 Commonwealth Avenue  
Boston, MA 02215  
Dear Professor Shimony,

1103 15th Avenue S.E.  
Minneapolis, MN 55414  
December 29, 1988

I am an Editor of a 17-year-young journal, RECIPROCITY and also an occasional newsletter, ISUS NEWS. They are news organs of our non-profit science education corporation, ISUS, INC.. We are a group of uncommitted investigators, engaged in the mighty adventure of physics research. A main objective of our venture has been and is, working with or/and against my physics profession, to revalue and unify the science of physics.

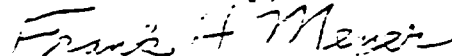
In this connection I wish to request your assent, your permission, to reprint your Letter of October 31, 1988 to the Chairman of your Physics Department, Professor Larry Sulak, expressing your incipient, honest insight into this venture of ours.

Everyone sees according to his or her light. Everybody knows more than anybody. We think that a very promising, if not the most promising program, for accomplishing the desired comprehensive unification of physics, is the Reciprocal System of physical science, originated by the now 90-year-young engineer-author, Dewey B. Larson. We disagree with some opinions you have expressed against innovations in physics proposed by Larson. We wish, nevertheless, to share your Letter of October 31 information with our members and readers for further exploration of their possible relevance to our adventure.

I have been a practising Research Physicist in industry and medicine for better than a half-century, becoming a Professor of Physics and Philosophy after I turned 50 until I retired in 1981, not from work, but to do my own work. I studied 'scientific method' with Morris R. Cohen, Ernest Nagel, Herbert Feigl, etc. I studied relativity physics with Peter Bergmann as well as crystal physics with I. Fankuchen, Rudolf Brill, P.P. Ewald, David Harker, etc. at Polytechnic University, when it still modestly referred to itself as the Polytechnic Institute of Brooklyn, where I was born in 1915.

We value you, Professor Abner Shimony, not only as a man and fellow physicist, but also as a valued friend and/or a brave enemy, that is, a friend who helps to keep us of ISUS, INC. ON OUR TOES.

Sincerely,



Emeritus member, American Physical Society,  
American Association of University Professors,  
American Crystallographic Association,  
Federation of American Scientists,  
Emeritus Physics Professor, University of  
Wisconsin System

PROF. FRANK MEYER, President  
DR. RONALD BLACKBURN, Vice-President  
RONALD W. SATZ, Secretary  
DR. RAINER HUCK, Treasurer  
PROF. FRANK MEYER, Editor, RECIPROCITY

Boston University

Department of Philosophy  
745 Commonwealth Avenue  
Boston, Massachusetts 02215



Jan. 15, 1989

Mr. Frank H. Meyer  
1103 15th Ave., S.E.  
Minneapolis, MN 55414

Dear Mr. Meyer,

It is creditable to you and to your journal that you are willing to print the letter that I wrote to Larry Sulak criticizing Ronald Satz's book. (Please correct my unfortunate misspelling of his name when you reprint the letter.) It certainly shows open-mindedness on your part. I give you permission to print the letter, provided that you add a note to it saying, "Professor Shimony requests that no one attempts to initiate a correspondence with him concerning the content of this letter, though he has no objection to being sent reprints and preprints of articles." My reason for insisting on this addition is simply self-protection. I do not have time to engage in correspondence, for I am carrying a heavier burden of work now than I ought to be doing; and I do not like to be discourteous and not even give a brief answer to a letter. When I published my article in Scientific American in Jan. 1988, entitled "The Reality of the Quantum World," I received at least fifty letters, some criticizing my argument, some agreeing with it but enclosing articles and requesting comments on them. I answered many of these, but finally gave up, and I still have a bad conscience about not acknowledging some of the letters. In short, my attitude is: here is my comment on Satz's book for people to consider, and if it helps clarify their thinking some good has been done.

Sincerely yours,

Abner Shimony

Prof. of Philosophy and  
Physics

P.S. It occurs to me that you might simply print this letter along with the letter to Sulak. That would serve the purpose of warding off correspondence by giving the reason for my unwillingness to correspond, and it would also present my compliment about your open-mindedness to your readers.



Boston University

Department of Physics  
590 Commonwealth Avenue  
Boston, Massachusetts 02215

617/353-2600  
Telefax 617/353-9393

Prof. Larry Sulak  
Chairman, Department of Physics  
Boston University  
Boston, MA



Oct. 31, 1988

Dear Larry,

I have examined the material on the Reciprocal System which you gave me and found the reading to be a painful experience. I am frankly baffled that this material was forwarded to you by some one with academic credentials, and I am also baffled that it could have any appeal to people who are acquainted with the natural sciences. I shall mainly refer to Salz's The Unmysterious Universe, since it is the only sustained exposition among the papers you showed me. The arguments which it gives to dismiss the procedures and results of standard modern physics are misrepresentations, and the proposals for constructive substitute (due to Dewey Larson) seem to me vague and incoherent. I shall give a few illustrations, but I can point out many more examples of these failures if there is need for more examples.

In the second column of p.8 there is a quotation from Larson, giving an argument that mass cannot increase with velocity. It is clear that he has confused two concepts. One is rest mass, which is a property of a particle independent of its velocity, and the same in every frame of reference. The other is sometimes called "relativistic Mass" and it is the ratio of the momentum of a particle to its velocity. Since the relativist expression for momentum is

$$p = \frac{m_0 v}{(1 - v^2/c^2)^{1/2}}$$

where  $m$  is the rest mass, it is clear that the "relativistic mass" does depend upon the velocity. But it is incorrect to present an argument which conflates these two concepts. Furthermore, Salz's later argument on this page, immediately after the quotation, is based upon the assumption that the Newtonian force law  $F = ma$  is valid relativistically, which is not the case, since the relativistic law is

$$F = dp/dt,$$

and this reduces approximately to the Newtonian law only for  $v$  much smaller than  $c$ .

On p. 9 it is argued that the relativistic treatment of the pair of clocks A and B is inconsistent. One statement in the argument is that relativity theory "states that the motion of clock B relative to clock A is indistinguishable from the motion of clock A relative to clock B." But special relativity only asserts the equivalence of all inertial frames, and if one frame is accelerated relative to an inertial frame, then it is not itself inertial. Since the argument supposes that B is accelerated and A is not, then presumably it is the latter that is at rest in an inertial frame and the former is at rest in a non-inertial frame. Hence the supposed indistinguishability breaks down according to special relativity theory.

On p. 11, first column, it is asserted that there is no adequate reason for the reaction to proceed from H to He. Since Salz accepts  $E = mc^2$  on p. 8, even though he rejects other aspects of special relativity theory, he has the reason at hand: the mass of four hydrogen atoms is less than the mass of a helium atom, and hence

Boston University

Department of Physics  
590 Commonwealth Avenue  
Boston, Massachusetts 02215



617/353-2600  
Telefax 617/353-9393

an exothermic reaction is possible in which hydrogen is burnt to produce helium. As to the claim that there is no experimental evidence for this process, one doesn't have to examine the stars; it occurs in the fusion reaction of a hydrogen bomb! (Of course, the fusion reaction uses heavy hydrogen rather than ordinary hydrogen, but the argument which I just gave is unchanged by this fact.)

On p. 12, first column, the author cannot understand how a current can be maintained without the accumulation of negative charge. He need only consider water pumped steadily through a circular pipe, giving a current of water without a build-up of density. (When lapses of logic of this kind occur and recur, it is hard to see why one should take the work at all seriously.)

Let me turn now to the crucial constructive proposal of the Reciprocal Theory., in the second column of p. 20, culminating in the argument for three dimensions of time. I could paraphrase the argument perfectly well by considering the purchase of land with dollars, at the cost of  $c$  dollars per square foot. Here area and money are reciprocal. Since area has two dimensions, it would follow --- exactly paraphrasing the author's argument -- that there are two dimensions of money! (Again, why should one take seriously a work in which the texture of the reasoning has this character?)

I could not follow the discussion in chapter 3, which seemed to me qualitative, impressionistic, and loose. What really is meant by "When moving, the electron, a one-dimensional motion, generates a two-dimensional motion"? This type of discussion should be compared with the discussion of interactions between moving charges in an elementary undergraduate book on electromagnetism, in which a rich body of phenomena is explained quantitatively with fairly simple arguments -- simple, that is, to any one who takes the pains to acquaint himself with the requisite tools of calculus and vector analysis, and to proceed in a step by step fashion.

I think that I have said enough to indicate my assessment of Salz's book. If further analysis is needed, I am willing to give it.

With best regards,

Abner Shimony

Professor of Physics  
and Philosophy

T R A N S P O W E R   C O R P O R A T I O N

1 Oak Drive  
Parkerford, PA 19457

(215) 495-6362

November 15, 1988

[copy]

J. Edward Anderson  
Boston University  
Dept. of Aerospace & Mech. Eng.  
110 Cummington Street  
Boston, MA 02215

Dear Prof. Anderson:

Thank you for having the courage to bring the Reciprocal System to the attention of the physics faculty. My response to Prof. Shimony's review of the Unmysterious Universe is as follows:

1. My name is Satz, not Salz. I am listed in American Men and Women of Science and have a B.Sc. and M.Eng. from RPI. I completed the course work for my doctorate in engineering at MIT before choosing to leave to retain patent rights to my invention (U.S. patent 4,009,573).

2. The mathematics of Special Relativity is correct, but the physical interpretation is wrong. The relativistic correction factor belongs with the force or time, not with the mass; as speed increases, the force goes to zero, rather than the mass going to infinity. The mass of a particle results from the spin of its photon(s); it is not affected in the least by translational motion. (Would the relativists like to tell us where this supposed increase in mass comes from?) See p. 119 of Resnick's Introduction to Special Relativity (1968) for another critique of relativistic mass.

3. The clock paradox applies to the case of two inertial frames in relative motion, whether accelerated or not. Because Special Relativity admits of no preferred coordinate system, the clocks both register more and less than the other even with no acceleration! (See p. 88 of Larson's Nothing But Motion.) In the Reciprocal System, motion is the fundamental component of the universe and is thus self-contained and absolute (i.e., not purely relative).

4. The two most likely candidates to explain stellar energy generation are the fusion of light elements and the fission of heavy elements (both of which have been achieved on earth). Direct observation of the sun and stars cannot give us the answer, so we must rely on collateral evidence. Normally material aggregates stratify by mass; the heavier elements sink to the center, while the lighter elements remain near the surface. It is likely that the heat of the sun and stars is generated from their centers, where the heavy elements are concentrated--hence the greater likelihood that fission, not fusion, is the source of the energy, as the Reciprocal System contends. The hot blue stars are thus old, not young, as their mass indicates--their fuel is not hydrogen. (The more massive entities should be older than the less massive ones).

5. It is the difference in potential, not density, that causes the flow of water or electric charges. Electrostatic potential is directly proportional to the amount of charge. In the Reciprocal System the electrons involved in current flow are neutral and thus there is no charge buildup at one end of a wire.

6. Area of land and amount of money are not reciprocal, but proportional. The analogy does not hold. In the Reciprocal System, space-time (or motion) is three-dimensional; except for convenience, it is incorrect to think of space apart from time or time apart from space.

7. A one-dimensional entity (an electron) translating perpendicular to itself generates a two-dimensional motion (a magnetic effect). Much more on electromagnetism can be found in Larson's Basic Properties of Matter, pp. 230-240.

8. I am perfectly familiar with the "requisite tools of calculus and vector analysis". (See my engineering book, with 800 equations, or my numerous papers, or my commercial software packages). I stated in the preface of the Unmysterious Universe that "mathematical detail has been kept to a minimum so as to enable the reader to grasp the qualitative essentials first."

9. The basic postulate of the Reciprocal System is that the physical universe is composed entirely of units of motion, the basic speed being  $4.558816 \times 10^{-5}$  cm/ $1.520655 \times 10^{-16}$  sec, or the speed of light. This is quantitative, non-impressionistic, and tight. In contrast, contemporary physics lacks theoretical definitions of space-time, photons, subatoms, and charges. It cannot provide useful calculations for the properties of matter. It is thus qualitative (the mathematics of quantum mechanics is too difficult to apply in practice), impressionistic, and loose. Engineers generally prefer classical physics.

I am willing to continue to respond to any comments made.

By the way, my latest commercial software package, Expert Thinker, is the first microcomputer package able to prove theorems and solve declarative problems in logic, math, and science. It features staged depth first search, the occurs check, true negation, and the capability to use non-Horn clauses. It includes a predicate calculus to clause form converter. See the November, 1988 issue of Byte magazine, p. 88, for a brief write-up.

Sincerely,

Ronald W. Satz  
Systems Engineer

**St Paul**

The St. Paul Companies Inc.  
385 Washington Street, St. Paul, Minnesota 55102  
Telephone (612) 221-7911

DATE: MARCH 27, 1989

To:	INT. SOC OF UNIFIED SCIEN	Check No.	00007500
	1103 - 15TH AVE. SE.	Check Amt.	400.00
	MINNEAPOLIS, MN 55414	Org. ID#	2430436

From: Mary E. Pickard  
Community Affairs Officer

Re: The St. Paul Companies Partners in Giving Program

I am pleased to write that our records indicate that your organization qualifies for a matching gift through the Partners in Giving program. Funding for this program is from the St. Paul Fire and Marine Insurance Company Charitable Contributions Trust.

Please note that double matches are granted when 50 hours or more of volunteer time is donated by the participant to the organization in addition to a minimum financial gift of \$25. This amount, if any, is reflected in the "Match" column.

If you have any questions about this program, please contact Kim Pohlen at 612-221-7757.

Participant	Participant Gift	Match
-----	-----	-----
MEYER, FRANK V	400	400
	12.	

DR.K.V.K.NEHRU  
PROF.IN MECHL.ENGG.

Dated 20th December 1988.

My Dear Frank,

Thankyou very much for your letter addressed to the ISUS Board Members, which I received on December 1, 1988.

On going through the correspondence you sent, I gather that Mr.Larson has not yet personally presented the introduction of the Reciprocal System at the Boston University and that some literature had been sent instead, including Satz's primer.

I have gone through the criticism made by Prof.Abner Shimony on the unmysterious universe, I can well understand his dismay on reading it: I myself went through such frustrating experience. I would not recommend Satz's primer to beginners: it could be used as a lecture notes by a speaker on R.S. I would like to touch upon briefly on Prof. Shimony's comments in the past two or three paragraphs of his letter dated October 31, 1988 addressed to Prof.Sulak.

On P.2 of his letter, in para 2, Prof.Shimony remarks about the 'lapses of logic' in Satz's book, adducing the counter-example of water being pumped steadily through a circular pipe, giving a current of water without a build-up of density. Unfortunately, this example proves the point Satz is trying to make (at the place cited) rather than confuting it, provided Prof.Shimony realizes that he should choose pressure and not density in his example so as to make his analogy legitimate.

Concerning the argument for three dimensions of time, Prof.Shimony prefers the example of cost of land in dollars per square foot to show that Satz's reasoning applied here would lead to the conclusion that money is two-dimensional. He then expresses: "Why should one take seriously a work in which the texture of the reasoning has this character" ?

May I humbly suggest that the implausible conclusion about the two-dimensionality of money that Prof.Shimony prefers is not due to defective texture of Satz's reasoning but due to Prof.Shimony's misapplication.

In the Reciprocal System space and time are the two components of motion, reciprocally related to it, by postulate. Larson amply makes it clear that in the universe of motion, space or time per se does not have a separate existence. Each exists only in conjunction with the other, since motion is the primary entity of the physical universe. Hence the characteristics of space and time as these occur in the definition of speed or motion  $v = s/t$  ought to be identical, as explained by Satz.

However, in the conventional theory (the universe of matter) space and time are regarded as having independent existence. In this case, therefore, the occurrence of space and time in the quotient  $s/t$  does not logically entail the identity of their characteristics. A notice (to the Reciprocal System) is quite liable to carry over his conceptual frame (of mind) nurtured by the theory of universe of matter into his study of the theory of universe of motion (the Reciprocal System) un-consciously. <sup>This leads</sup> ~~the leads~~ to absurd results. In the example cited by Prof. Shimony, the cost and area are independent concepts. Nor the land rate is a fundamental quantity underlying the structure of the universe like motion in the Reciprocal System is. Consequently, the instance of a ratio like  $x$  dollars/ $y$  square feet, where  $x$  and  $y$  are conceptually independent, does not imply any identify of their properties.

The inability to relinquish the setting concept of space and time that the theory of universe of matter engendered and to note that motion is logically prior to all physically phenomena in the theory of universe of motion would be the <sup>subtlest</sup> ~~sub-test~~ and most fatal difficulty a critic has to get over before he can meaningfully evaluate the Reciprocal System.

Prof. Shimony's comments in the last paragraph of his letter, about the electron generating two-dimensional motion and the quantitative explanations in the undergraduate text

...3

books reflect the above cited difficulty in addition to the predilection to mathematical treatment. In this case, there seems to be a confusion between two types of issue. In the first instance, in chapter 3 referred to by Prof. Shimony, Satz is concerned with the discussion showing how the primary entities of the physical universe emerge logically from the fundamental postulates of the Reciprocal System. In the second instance, in which Shimony alludes to the interactions between moving charged in undergraduate books, the discussion is concerned with the quantitative relations between these primary entities. This type of discussion might well be mathematical, but the former type of ~~bound~~ bound to be qualitative!

*discussion is*

What then Prof. Shimony or others who want to see where the 'real stuff' is are looking for is this latter type of treatment where it is not necessarily applicable. What one should be looking for is whether the Reciprocal System explains quantitative facts as well, but not whether it does it preponderately by mathematics.

With warm regards

*K.V.K. NEHRU*  
(K.V.K. NEHRU)



7  
PROF. Frank Meyer  
1103 S.E. 15th Ave.  
Minneapolis, MN 55414

Dec. 14. 1988

Dear Frank,

Thanks for including me in the request for input about the Boston Univ. invitation. Dr. Anderson seems to be sufficiently open-minded toward new ideas in general and astute enough to recognize the prerequisites necessary to consider anything really new. His delineation of three attributes that any person must have to really delve into this Reciprocal System is very much on the right track.

Abner Shimony is very obviously not such a person, he seems to have too much vested interest in maintaining his own position to be able to risk even an open mind. His arguments are those of one who dares not admit that any possibility of error exists in his own thinking, let alone that of his idols. His lapses of logic are even more profound than those he accuses Ron Satz of, especially in his comparison of dollars and area. Shimony would miss the whole point of the Reciprocal System even if it were the only theory available and therefore I think his so-called analysis can be summarily dismissed as being from one who himself dares not to risk self-examination. Ignore Shimony and continue communication with Ed even though he admits he doesn't have time to be a promotor.

Every potential audience will have its dissenters and likely its hecklers. Hopefully, DEL has learned how to deal with them in the many years he has been presenting the Reciprocal System of theory. Speaking very frankly to you, Frank, those who are unwilling to look at a new way of considering this world and its phenomena are reacting as though their approach to science is their religion and most people feel very threatened when their religion is being questioned. Don't let the "Shimony's" bug you!

Admittedly, when I first read Larson's book "The Structure of the Physical

Universe", I had considerable difficulty because of where I was coming from, but at least I didn't dismiss it as having no worth. Then after plowing through "New Light on Space and Time", my response changed to a need to present the basic ideas through example and discussion rather than what seemed to be too much argumentation about frustrations with the present establishment. I admit that some argumentation was necessary and probably was appropriate for some readers. Now I feel that there is a need for a clear, straight-forward presentation of the basic concepts on a level understandable to the average high school chemistry or physics student. That level is where most of us really started our own scientific training and therefore most of us need to be taken back to that level and restarted even though we may rebel at being treated like children. That is "ego" preventing us from being teachable and thereby blocking any receptivity we may have. I guess that's the teacher in me talking, but I really feel that high school level is the best place to start.

By high school level I do not imply in any sense that I would be talking down to a college level or even graduate level seminar. What I mean is in sentence structure and complexity of words and ideas and the way they are presented. I have found that even in graduate level courses, the professor had to present new material, and especially involved correlations, in many short statements. Then tie a few together and go around again, tie a few more ideas in and go around yet again. Eventually the full implication could be made in a single statement which initially would have left nothing but confusion.

This is the approach I am taking in preparing my introductory presentation for the video on which I am working. The script for what I expect to say has a lot of repetition in it, but the accompanying book is very concise with very little repetition since the reader can always go back and re-read whatever was not clear initially. What I am having difficulty with is coming up with visuals

to assist the viewer into coming to grips with scalar motion without the absolute requirement of vectorial direction; maybe that's one of those things that the individual must do in his own mind. The most difficult thing I have had to work out in my mind is the idea that there is no inherent relation between the scalar value of a harmonic motion in one scalar dimension and the normal progression in a perpendicular dimension. If you have any ideas on either of these topics, I could sure use the help.

Wishing all the best for you and yours. Have a Merry Christmas and a very Happy New Year.

Sincerely,

  
Lawrence E. Denstow

REQUEST ABOUT FUTURE PUBLICATION OF ISUS, INC. MEMBERSHIP LIST

Dear Member,

From time to time we get requests from members of ISUS to obtain a copy of our current membership list. These members feel as I do that it would be very helpful to the organization and for the advancement of the Reciprocal Theory for members to be able to contact other members in their vicinity in order to discuss and share ideas. In fact I feel that it would be helpful to send the membership list to all current members on an annual basis.

We have also received requests though from some individuals to not have their names distributed with such a list. We do not however have an up-to-date list of who these individuals are. We plan to distribute the list in the near future. Only current dues-paying members will be included on the list and will be sent the list.

If you do not want your name included on the distributed list, fill out the form below and return it to me within 30 days and your name will not be included on any future distributed lists.

Edwin Navarro  
113 Chinkapin Lane  
Williamsburg, VA 23185

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_