



Spokesperson

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“But why keep silent when it’s something truer than truth?” Erasmus

THE MATH ISSUE

Editor’s Note: We all have our issues. But only *The Spokesperson* has “the math issue.” One of the advantages of being “called on the carpet,” as the FicSoc³ have been, is that those carpets, as we all know, are in the “corridors of power” (and are the same carpets that the new Goodwill store used—have you noticed?) and those corridors are lined with desks which all have in-baskets which have in them things like ... legal briefs. And because we all went through the faculty training on “reading upside-down documents,”¹ we got the following scoop. And we are not talking the kind of scoop you take on your doggie walk. So, look in the CPJ, check *The Olympian*, read *The Chronicle of Higher Education*; you won’t find this there because it’s only here. The College is in deep doo-doo (and here we are talking the doggie-walk kind). We’ve got the story.

Also in this issue are two reports on Fictional Sociology’s responses to The Math Issue. **(One of them is about SEX.)** And from FS’s FSs (Fictional Sociology’s Friendly Surfers) two items from the Net that you probably missed but will want to check out more thoroughly now.

TESC Sued for “Math Induced Anxiety”

by FS News Service®

A group of former consumers of The Evergreen State College has filed suit against the college alleging “severe emotional upset” and “math induced anxiety” caused by instruction in mathematics to which they were subjected at the College. Dubbing themselves the “Group Of ... Uh ... Several” (GOUS), the plaintiffs claim that they enrolled in classes that were supposed to have no mathematics content and still were subjected to the emotional upset of having to deal with equations on chalkboards, tables in books, and numbers. GOUS is suing for unspecified damages because calculating the damages would be “a further violation of their self-esteem.”

¹ We always try to take advantage of the trainings offered by the Provost. During the summer, 1997, we attended the Pedagogical Impression Management Institute conducted by Dorothy Slovar (who, in the interest of full disclosure, we must identify as *The Spokesperson’s* spokesperson). One workshop was based on the following case study: “A consumer appears in your office in tears and complaining of a bad evaluation. You don’t have the foggiest idea of who she is. She is, however, carrying a test, a term paper, or some other Achievement Assessment Device, but, to you, it is upside-down. What do you do? In this institute, faculty will learn to read documents upside down. Discerning a name can save embarrassment. Reading the opening paragraph can jog an aging memory. Learn this must-have skill in this two-hour workshop.” We went; we learned; we manage.

The timing of the suit was apparently designed to take advantage of the adverse publicity surrounding the Northwest Commission on College's insistence that TESC consumers get a more rounded education, especially in mathematics. In a caveat to its recommendation that the college be reaccredited, the Commission recommended "that the Evergreen State College make sure that all of its students [sic] acquire the competencies appropriate to a general education, especially but not exclusively in the area of mathematics.... Whatever the means taken ... there is ... an institutional responsibility to achieve its stated liberal and general educational goals." The college's review of its work showed, mathematically, that 30% of consumers graduate with no credit in math.

A spokesperson for GOUS said, "Members of the group thought that Evergreen was a college where they could get degrees without being subjected to the personal assault of being required to take courses in math. These people have been in school for years, lots, and they have had enough of that. But they want to be computer programmers, doctors, and business owners. They all want to be well educated citizens. And for that you have got to have a college degree."

Rey Slovar, Assistant Vice President for Consumer Relations, said, "As an Officer of the College I am in agreement with the Provost that, 'the college will, of course, have to comply with the Commission's recommendations,' but the question, as always, is how we comply. Frankly, this is the sort of thing I've been cautioning against since I came here. Our policy to have all classroom material reviewed for possible negative effects on self-identified victims and low self-esteemers [see *The Spokesperson*, Oct. 28 & Nov. 3, 1998] and the immunization against effective material has helped. But we have had little compliance with this policy from people in the sciences and mathematics. They think they are 'value neutral.' This suit should show them otherwise. Any teaching can have effects. And that is what I was hired to protect against."

One of the defendants named in the suit is Tom Grissom. He said, "I did put equations on the board but they were Einstein's. I was teaching physics, not mathematics."

One member, or a few (who knows? they don't, or can't, say), of GOUS commented, "Teachers rely on such fine distinctions to get away with all sorts of really nasty stuff. There were equal signs, little tiny numbers up in the air, letters where there should have been numbers. I just couldn't cope. I kind of lost it and had to go to Belize for two weeks to, you know, shake it all off."

Slovar said he could not side with the ex-consumers in their complaint but he said, "Teachers have to be careful. It's very common for math and science teachers to do their work without giving another thought to the effects on the self images of those consuming the faculty member's lecture."

A spokesperson for Evergreen's 8th Grade Advising Initiative² said, "For sure. We know of students in middle school—mostly girls, and one the daughter of an Evergreen faculty member—who are very good at math but who purposefully score lower than 100% on math tests because they don't want to be known as the nerds they are. It affects them, and their self esteem, too."

A plaintiff with GOUS gave a pointed example that is more fully elaborated in the GOUS suit: "I was doing fine in art history until they throw in something about, you know, 'the seventeenth century' when they mean, like, the 1600s, and I ask why it's the 17th and not the 16th century and the instructor says, 'It's easy: you just add one to the number in the hundreds column.' ... Well, easy for him maybe, but for me, like, there is no way I'm going to remember *that*, you know, just so I can tell *when* we're talking about, and we're just talking about art anyway. I felt excluded."

² President Jane Jervis, commenting on the 2020 Commission Report to Gov. Locke, is reported to have said, "They also said that K-12 is no longer enough as basic education. They make a commitment to K-14, and to extending two free years of tuition to any student who passes the Certificate of Mastery. Connected to that are provisions that we take college preparatory advising back to the 8th grade to start to motivate students and their families towards this Certificate of Mastery." (TESC Faculty Nov. 18, 1998, Meeting Minutes). And when the President speaks the minions make programs. Ed note: watch these pages for further developments on this front.

“See,” said Slovar, “that’s the way it happens. Math doesn’t enter into just math classes. Math is something that gets taught across the curriculum, sometimes without recognizing it. It’s hard to immunize against the effects of something when the faculty aren’t even aware they are doing it.”

Some faculty *are* aware of what they are doing and they are doing something about it.

William Arney gave a lecture on the detection of disease. In order to gain 4 points for his “Fictional Sociology” course in the College’s Math Across the Curriculum Incentivizing Program,³ Arney used tables from the *New England Journal of Medicine*. “It had very bad effects,” Arney said. “Eyes glazed over. One consumer with a big head fell asleep, tilted bit too much, and crashed to the floor. Then no one would speak to me, not even in seminar. It just wasn’t worth it.”

Arney is the author of a statistics textbook that, according to him, “didn’t sell worth a damn.” The lesson he learned from that was, “that statistics texts are probably doing more harm than good. People aren’t buying because they know how hard statistics can be on the soul. As a consequence of this learning I’ve turned down the administration’s request that I teach statistics (except, of course, to the graduate consumers in public administration who, research shows, have no self-esteem to worry about anyway).”

Slovar said of Arney’s pedagogical decision, “He’s one of our best compliers. He works hard at protecting his consumers, and, more important, he understands the problems caused by his teaching.

Another “Fictional Sociology” faculty member has tackled the issue with a brilliant and sweeping pedagogical gesture. “I give math credit to anyone who asks,” said Charles Pailthorp. “They ask, I award, and the percentage of consumers who have no credits in math goes down. Neat, huh?”

“Percentage?” queried one of the GOUS complainants. “Isn’t that the thingy with two balls wrapped around a slash? That’s way too phallic for me to feel comfortable with.”

“See?” commented Slovar. “But we still believe Pailthorp’s approach is part of an overall solution. It could be the whole solution if he would cast it in more accessible terminology.”

What’s next?

A spokesperson for GOUS said, “We are not doing this primarily for ourselves. There are countless others—at least, members of our group aren’t going to try to count them—who, everyday, are suffering math induced anxiety. GOUS members are all doing fine in their therapies. This is about the future, which is, you know, years from now. Lots.”

College Grievance Officer Feldman said, “A suit against the College can be an educational moment. Faculty have a lot to learn about how to be hospitable and members of the ‘Group Of ... Uh ... Several’ could use this as an chance to learn to count, if they choose to do so and take personal responsibility for that choice. I hope that everyone involved will do so.”

“Fictional Sociology” Goes to the Dogs

by FS News Service®

Not unrelatedly: Along with other “all level programs”—programs that admit freshmen in addition to other consumers—“Fictional Sociology” received a pile of real statistics generated by Academic Dean Lee Lyttle. At the urging of Rey Slovar, Vice President for Consumer Relations, Dean Lyttle (no reference to his stature, physical or otherwise) started an on-going assessment of the effects of “all level programs” on freshmen. Dean Lyttle distributed lots (we didn’t count) of numbers and statistics but no statements or conclusions. Lyttle is a known as a math purist.

³ Administered by Academic Dean John Cushing, the Math Across the Curriculum Incentivizing Program increases the academic budgets of courses that include the teaching of math. Working on a point system (e.g., an embedded course on statistics through correlation = 20 pts; statistics through multiple regression = 40 pts.; a lecture requiring the interpretation of at least four statistical tables = 4 pts., etc.), the Program enhances the Xeroxing budgets of programs where faculty can demonstrate a commitment to “making consumers feel comfortable with numbers and such like that.”

The faculty of “Fictional Sociology,” pragmatists all, jumped to their own conclusions. From the many “statistically significant differences” in Lyttle’s summary, it seemed obvious that freshmen feel more isolated than upper class persons. The FicSoc³, always trying to respond conscientiously and caringly and, thereby, to show that math is relevant, have used the non-print portion of their program budget to buy their freshmen consumers dogs. All dogs have been neutered, naturally (well ... surgically, actually).

Calculated Sex as an Incentive for Math Learning: An Interdisciplinary Approach to Quantitative Know-How

by Maeve Warmblood
Math Spokesperson
The Evergreen State College

Background

In an interdisciplinary curriculum we are always concerned about developing and fostering our students’ quantitative and mathematical skills. For those of us who have spent our professional life-times thinking about this puzzle, it is not exactly news that students think of skill-based competencies mostly in terms of their sexual adventures and experimentation. For the youth in our care “skill” is related to “scoring” where “scoring” has nothing to do with how you performed on a test. So how do we get them charged up about math per se? Its relevancy is often invoked in the context of tax returns, trips to the grocery store, household budgets, calculating the prospects of early retirement, following recipes, estimating distances, reading maps, not to mention the many contexts in which adults in the real world are asked to figure percentages-yep, practically everyone over the age of 30 is always asking: “What are the f*ck*ng odds?” in this crap game of life. In spite of our lively methods, our in-your-face approaches, students continue to fall off their chairs out of sheer physical boredom. The sleep-drive (i.e. gravity) is a stronger and more universal force than pedagogy will ever be. So, the students continue to slump and fidget and often fail altogether to arrive or, when they do, depart imaginatively at the first available opportunity.

In the math department, we have been studying these failures and departures-studying them assiduously and strenuously because we passionately want students to add up to something, eventually. Our most recent attempts to reform the math curriculum were established in the “Fictional Sociology” program where the faculty were particularly committed to integrating mathematical reasoning into their broader sociological methods. As a case study, the success of this program should provide strategies for many interdisciplinary approaches to liberal education (and we mean very liberal and very educational).

Proust and the Geometry of Love: The Love Triangle

In a seminar discussion about Proust, students focused on jealousy which, according the bedridden literary master, is a necessary component of even the happiest or stable (or convenient or simply boring) liaison. In short, thinking about who your sweetheart might be thinking about-not yourself-is the imaginative equivalent of lighter fluid and a match: it ignites passion and inflames even the dullest and understated of commitments. Whether or not there is “someone” else is beside the point because love is sustained by unreasonable suspicions. Always. Everywhere. Translated into mathematical or geometrical language, this dependency of love on jealousy can be understood as The Love Triangle. To underline the significance of this momentous truth, it takes only one example: There is a first year, female student in “Fictional Sociology” who did not know what a “love triangle” was. No doubt she knew something about love and something formalistic about triangles. But never before had she encountered the concept

of a LOVE TRIANGLE. It was a revelatory moment, a metaphysical chasm, an apotheosis-you name it. The more advanced students answered the clarion call. They stepped in. They mustered their expertise and, in doing so, called forth, as if by divine inspiration, an endless string of examples, variations, problems, scenarios, propositions-some mathematical, some descriptive but all fusing on what can only be described as a revived geometry. “His bitch,” “the other bitch,” “that swine (or dog or rat or pig),” “the two timin’ bastard”-these all assumed a beautiful Euclidean proportionality and positioning within the social resonances of the discussion.

The Love Diamond

When it seemed that the seminar might have blown its wad on this inexhaustible subject, one of the most advanced and perhaps promiscuous female students took charge of the chalkboard. Commanding her peers’ silence, she asked, imperiously, “But, now, what about the love diamond?” after which she drew together two isosceles triangles abutted at their bases. For emphasis she repeated, tapping with the chalk, “This is the love diamond.” Silence abounded. Then one wavering, tentative voice ventured forth, “It’s, like, it’s like, like a four-way?” The subsequent discussion was informed, substantively, by various teenie bopper films to which all of the students had been repeatedly exposed. Thus embedded in popular lore, the more advanced geometry was enlivened and, finally, fleshed out: problems in love is how we arrive at the truth that geometry has to have meat.

Size Matters

And speaking of meat, there was more to come. The discussion progressed as if the students were embracing a textbook on the subject-at once, writing and reading, via the new, new math, a quasi-discovery sequence of stories and problems. It was only a matter of time, then, before these students would discover that if Geometry has to have meat, then meat matters and, furthermore, size matters, or: if $A+B=C$, where C is a function of how-long/how-wide (or whatever: you do the math). The following discussion was, no doubt, infused and invested with deeply held personal beliefs and, more astutely, with distortions and projections. Every hypothetical trajectory became the subject of speculation and distress. The boys worked as hard as the girls. The windowless room, always too small, became redolent of ill-deodorized youth, our work becoming more urgent as the air thickened.⁴ We worked strenuously against a tendency to personalize or to become defensive. More B.O. The debate ran hard and deep and long. Even more off-gassing of the groin and underarm. However, in the end, it came down to the only thing that ultimately matters or, more precisely, that can be accurately measured: inches. Inches: How many? If this is not astute mathematical reasoning then you’ll have to give me a new ruler by which to measure. But, if you insist on recalibrating, remember that we’re still working on the same problem.

after-Math

In seminars where liberal arts and mathematics meet and do more than simply wave at each other ceremoniously, there needs to be follow-up in the form of after-Math. Through discussion and journal writing, students learn how to handicap their own performance in the context of quantitative and/or numerical verities. For instance, a student might discover that size is a function of context; or that bigness is in the eye of the beholder; or that duration is relative to past experience. Of course, this is not promoting a relativistic notion of truth. Rather, we’d like to make students feel better about their own bodies by introducing the concept of historical contingency. And, in the end, each student will have to come to terms with the fact that each act of coitus is screwed down by the strangeness of circumstance. The answer to this type of distress

⁴ The Fictional Sociology faculty made a special request for rooms that were at least ten seats too small for projected enrollments. This crowding could only heat the process of integrated learning. The fact that the seminar rooms were windowless was serendipitous; they had no way of predicting the various salutary effects of claustrophobia on math learning.

is, and always will be, mathematical certitude. When you feel betrayed, invoke the triangle; when you are two-timing a two-timer, remember the beauty of symmetry; when you fear you have fallen short, look to history or literature (for the Elizabethans, "little prick" was quite a compliment). The after-Math curriculum culminates in a series of workbook entries that show students how to calculate their self worth using the standardized self-esteem tables. The formula is fool-proof, always precluding the possibility of negative results.

For more information about using these strategies in your work please contact M. Warmblood, the Math Department.

PUBLIC SERVICE SECTION: NOTES FROM CYBERVILLE

by FS's FSs

Call for Papers: A Philosophy of Computation

We're not sure, but we think this call for papers is for a conference on how to balance your checkbook, shop smartly, read bus tables, and figure out how to feed 20 from a recipe for "4-6." There is a parallel conference at the Hotel Sacer (have a torte on *The Spokesperson* if we see you there) on "Why Basketball Players Can't Compute."

If there is anything that needs a philosophy, it is computation. And if anyone can be convinced that there can be a "philosophy of computation," just think how many academic jobs that could mean! We think it's a nifty idea and hope some of our readers will be sending their abstracts in at the same time we do. We'll see you there!

Editors

Date: 1/21/99

From: Alexander Riegler <Alexander.Riegler@univie.ac.at>

After the success of the first New Trends in Cognitive Science conference in Vienna, Austria, we are pleased to announce its successor. While in 1997 we focused on the problem of representation (for details see <http://www.univie.ac.at/cognition/ntcs97.htm>), we will this year put emphasis on the notion of computationalism and its future in the cognitive sciences. Please have a look at the attached Call For Papers or the conference homepage at <http://www.univie.ac.at/cognition/conf/ntcs99/> for more information.

We are looking forward to welcoming you!

Alex Riegler Austrian Society of Cognitive Science

New Trends in Cognitive Science 1999

C o m p u t a t i o n a l i s m -- T h e N e x t G e n e r a t i o n

Purpose -----

This international conference and workshop organized by the Austrian Society of Cognitive Science attempts to bring together theorists working on identifying a "successor" notion of computation--one that not only respects the classical (and critical) limiting results about algorithms, grammars, complexity bounds, etc., but that also does justice to real-world concerns of daily computational practice, and thereby offers a much better chance of serving as a possible foundation for a realistic theory of mind. The workshop will focus on the prospects for developing a theory that takes computing not to be not abstract, syntactic, disembodied, isolated, and non-intentional, but concrete, semantic, embodied, interactive, and intentional. If such a successor notion of computation can be defined, the resulting rehabilitated computationalism may still be our best bet for explaining cognition.

It is hoped that this conference will set the agenda for a "philosophy of computation" that will tackle such issues as: the program/ process distinction; the notion of implementation and questions of physical realization; real-time constraint and real-world interaction; the use and limitations of models; relations between concrete and abstract; the proper interpretation of complexity results; etc. Addressing such questions is a critical prerequisite for providing a firm foundation for cognitive science in the new century.

Distance Learning, Reprise

One of our most closest readers, outside our legal department of course, thought we hadn't covered the distance learning issue sufficiently. Just a few clicks away from any of us, he pointed out, is rich fair like this, which he sent as an exclusive to *The Spokesperson*. (A reader on our "advance copy distribution list" pointed out that this was an "exclusive" to us because "everyone else knows about this online journal.") Our contributor edited this slightly, mostly for space.

Abstracts

Special Issue on "CMC & Higher Education" Part I.

Journal of Computer-Mediated Communication Volume 4 Issue 2 December, 1998

<http://www.ascusc.org/jcmc/vol4/issue2/>

<http://jcmc.huji.ac.il/vol4/issue2/>

In this Issue:

Audiographic Telecourses for the Web: An Experiment

Robert LaRose Jennifer Gregg Matt Eastin Michigan State University

Prior research on instructional media effects suggested that an audiographic approach to World Wide Web based courses would optimize educational effectiveness along with cost effectiveness, although with a possible loss of teacher immediacy that could adversely affect student attitudes. An introductory telecommunication course was converted to an audiographic Web telecourse in which students listened to pre-recorded audio classroom interactions while viewing a detailed course outline and illustrative sites over the World Wide Web. Forty-nine subjects were recruited from a live lecture class and randomly assigned to either the experimental (Web course) group or a control group that took the class in a traditional lecture section. Analysis of covariance (ANCOVA) showed that the experimental group had test scores and student attitude and teacher immediacy ratings equal to those of the control group after controlling for student gender, class level, grade point average and attendance. Open-ended interviews were also conducted to assess qualitative dimensions of student satisfaction. The results supported the audiographic telecourse model as a potentially cost-effective approach to distributing courses over the Web. New directions in research on instructional media effects and teacher immediacy were formulated from an analysis of the unique characteristics of the World Wide Web as an instructional medium.

The Crossroads between Lifelong Learning and Information Technology (CLLIT): A Challenge Facing Leading Universities (CFLU)

Michal Beller The Open University of Israel
Ehud Or Consultant & Projects Manager in Technology Mediated Learning (C&PM/TML)

Technology-Mediated Learning and Distance Learning (TML/TMDL), and particularly asynchronous learning through the Internet (LTI), are becoming major vehicles (MV) for fulfilling the needs of Lifelong Learning (LLL). A hybrid model of studies (HMS) using technological means (TM) is leading to the development of a new pedagogy (DNP) of learning and teaching (L&T). Various new models of higher education are revolving in North America and around the globe, in response to LLL needs and to the new opportunities (NNO) that are becoming available through the integration of learning technologies (ILT). These models are described and discussed (D&D) in this paper, for the benefit of those who are interested (FTBTWAI) in or are partners to higher education, and in particular the policy makers (PM's). Traditional universities (TU's) can adopt some of these models, while other models may call for the creation of new types of institutions of higher education (CNTIHE). Most institutions (MI's) will find that a joint effort is necessary for reaching the critical mass (CM) required for providing their educational system and their faculty (ESF) with a generalizable, salable and sustainable (GSS) TML solution. Creating such coalitions will turn out to be a challenge in and of itself.

Andrea Chester Gillian Gwynne Royal Melbourne Institute of Technology

This paper describes our experience as tertiary teachers (and learners) in cyberspace. A brief evaluation of the literature on computer-mediated communication (CMC) is presented, together with a review of the major theoretical positions explaining online interaction. The filtered-cues and social information processing perspectives are compared in the light of more recent formulations of the hyperpersonal. With a desire to facilitate and critically evaluate a hyperpersonal learning context or online learning community, we developed a range of strategies including the use of aliases. The subject is described together with our observations of the benefits and disadvantages of pseudonymity for education.

Staying Connected: A Case Study of Distance Learning for Student Interns
Diane F. Witmer California State University, Fullerton

This paper reports a pilot distance learning course that was launched in response to a number of concerns regarding an existing internship program at a Midwestern university. Not surprisingly, student reactions to the program were somewhat inconsistent, as their experiences varied widely, both in terms of the technology and the internship site, and the new course needed considerable debugging. Comments ranged from very negative to very positive. However, most of the students (63.5%) highly recommended or recommended without qualification that communication technologies be used for summer internships. Another 20.5% of the students recommended the use of communication technology with suggestions for improvement. A major improvement in the general quality of student report writing also was noted. The data indicate that a distance learning approach to internships has great potential to enhance synthesis and integration of classroom learning with on-the-job experiences.

Media Temporalities in the Internet: Philosophy of Time and Media with Derrida and Rorty
Mike Sandbothe Friedrich Schiller University Jena

The essay comprises four sections. The first section provides a survey of some significant developments which today determine philosophical discussion on the subject of 'time'. The second section considers the question of how time and the issue of media are linked with one another in the views of two influential contemporary philosophers - Jacques Derrida and Richard Rorty. Finally, in the third section, the

temporal implications of cultural practices developing in the new medium of the Internet are analyzed and, in the fourth section, related to the named philosophers' theses.

The Sacred and the Virtual: Religion in Multi-User Virtual Reality

Ralph Schroeder Chalmers University, Sweden

Noel Heather Raymond M. Lee Royal Holloway, University of London

This paper explores the social interaction among participants in a church service in an online multi-user virtual reality (VR) environment. It examines some of the main features of prayer meetings in a religiously-oriented virtual world and also what sets this world apart from other virtual worlds. Next, it examines some of the issues of research ethics and methods that are raised in the study of online behavior in virtual worlds. The paper then analyzes the text exchanges between participants in a virtual church service and some of the ways in which these compare with the content of a conventional church service. Finally, the paper draws out some implications for our understanding of the relation between interaction in the virtual and in the "real" world.

Special Issue Editor: Eli M. Noam, Columbia University

JCMC Editors: Margaret McLaughlin, University of Southern California Sheizaf Rafaeli, Hebrew University of Jerusalem

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