

U.S. AIDS figures increased from 26 to 31 percent, Hispanics increased from 14 to 17 percent, Asians and Amerindians combined held at less than one percent, and whites decreased from 59 to 51 percent.

In my book *Race, Evolution, and Behavior*, I documented numerous surveys carried out around the world showing racial differences in frequency of sexual intercourse. The results show that both before and after marriage, people of African ancestry are more sexually active than Europeans, who are more sexually active than Asians. Concomitant racial differences are found in sexual attitudes, with Asian groups being least permissive and African groups most permissive, and European groups in between. Typically, black samples are found to have had intercourse earlier, with a greater number of casual partners and with a more positive attitude to sexual display than either white or Asian samples. I suggest that these differences in sexual behavior are the cause of racial differences in the prevalence of AIDS.

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EDUCATION

Whatever Happened to the New Math?

by *Ralph A. Raimi*

School math textbooks 50 years ago were not written by mathematicians. The typical author was the chairman of a school science department somewhere, in a district large enough to make writing a textbook remunerative even if nobody else in the country used it. That he was ignorant of mathematics was unnoticed by an ignorant public and cadre of teachers, and that his prose was abominable was perhaps admired, so strong was the general (mistaken) belief that mathematics is not written in prose.

Teachers, mainly trained in schools of

education, knew little about mathematics to begin with; many habitually ignored anything demanding in their textbooks and took refuge in teaching the algorithms they had themselves learned as children. Textbook publishers wouldn't dare print a book containing something its predecessors did not contain, because no school would buy it. And what real mathematician would spend his time writing a school textbook that nobody would use?

Euclid's *Elements*, for example, history's greatest textbook of reason, had been bowdlerized, reduced, or supplanted by products that were sold as more practical, when the real attraction was their supposed "teachability": interest rates, surveyors' triangles, and rigid algebraic rituals for the college-bound. Anyone with half a mind could recite them, but neither teacher nor student wasted a minute on their meaning or utility. Worse, each generation's authors added a bit of new misunderstanding to what might have been right in earlier editions.

Sputnik gave us a chance to break this gridlock. The 1945 atom bomb had already given physical scientists and mathematicians a prestige without precedent; now the Russian success of 1957 added fear, which paid better. The year 1958 therefore kicked off the largest and best financed single reform effort ever seen in mathematics education, the School Mathematics Study Group (SMSG), upon which the National Science Foundation (NSF) spent millions of dollars over a 12-year period.

Edward Begle, a professor of mathematics at Yale University, was chosen to head the new organization, and gave up topology for this new and unfamiliar calling. The existing professional education bureaucracy, later called "the PEB" by William Duren, a reform mathematician of the time, was thus suddenly outflanked by a new party. That is, the teachers' colleges, the National Council of Teachers of Mathematics, and all the state and federal departments of education and nurture, who though loosely organized did still govern all teaching below the college level, were compelled to follow our lead.

What Begle saw in the schools could not be cured by a friendly environment, good lighting, or deep pedagogical insight, so long as the textbooks, and the mathematical conceptions of thousands of teachers, amounted to a pack of lies. He first assembled several separate teams

of mathematicians to write exemplary textbooks, eventually covering all grades from one to 12 and a bit more, that would be free of the ignorance, ambiguity, opacity, irrelevance, and tedium of the traditional curriculum. He included practicing schoolteachers in each writing team, hoping (vainly as it turned out) to keep his textbooks within the realm of the classroom possible; but the mathematicians drove the effort. SMSG invited all commercial publishers to study, copy, or plagiarize these texts, which SMSG placed in the public domain as models.

Simultaneously, SMSG established hundreds of institutes, i.e., special college courses for existing teachers, some in the summers and some on Saturdays, to which eventually thousands (paid by the NSF) came to study the new material, to practice its pedagogy under the eyes of SMSG authors and master teachers, and then to carry the books back into the world for classroom testing on a nationwide scale. The writing groups would reassemble summer after summer, study the reports from the field, and revise the texts and the teachers' guides for the next set of institutes and experimental classes.

Almost half of the nation's high school teachers of mathematics attended at least one such institute during the 12-year life of SMSG; but an equivalent seeding was impossible for elementary school teachers, who outnumbered the high school math teachers ten to one. While there were some institutes for elementary school teachers, these were mainly for experimentation. The SMSG books themselves achieved unexpectedly wide circulation, and were indeed, as Begle had urged, enthusiastically if often ignorantly imitated, even (or especially) at the more elementary levels. And the research literature produced in the colleges of education, and the journals of classroom practice written and read by teachers, were marked throughout the 60's by obeisance to the SMSG program.

The result, after 12 years, was total failure. By any reasonable measure, and measures were taken, school mathematics was worse off in 1975 than it had been in 1955. The idiocies of the older curriculum had in most places been removed, but often to be replaced with new ones. Tom Lehrer's 1965 song "New Math," lampooning the pretentious language used to justify an inability to calculate, had the mathematical com-

munity itself laughing at the follies committed in the name of promoting a better understanding of mathematics.

To take an example, the language of the “theory of sets” had been basic among mathematicians for 100 years, and can ease enormously the path to much that people find perplexing in school. Anyone should be able to learn enough about sets and this vocabulary in a very few hours to permit him to understand an honestly presented course of high school mathematics, including all the traditional material and more; his savings in time will have exceeded those few hours a hundredfold, and in understanding immeasurably. SMSG introduced set theory into its first books, which as it happened were for the high school level. Later books, written for grade school years, also introduced the subject of sets, hoping later to make use of it when revised high school books were written. During SMSG’s short life, therefore, a chapter on sets appeared at the opening of every year’s textbook, unfortunately making it appear as if sets were the be-all and end-all of New Math. This redundancy was copied into the commercial texts of the time as well, and teachers leaped on it to the neglect of more prosaic matters, like getting a correct answer in arithmetic.

Easy as it looked, teachers didn’t always get the notion of “set” straight themselves, and could teach the most egregious confusions as truth. One textbook lesson plan suggested that the teacher, as an example, distinguish the subset “boys” from the subset “girls” (in the set “this class”) by asking the boys to stand, and then the girls to stand, and so on; one teacher I heard about then asked “the set of boys” to stand up. But while boys, being human, can stand, sets cannot. So fine a distinction may be meaningless to a third-grade teacher, or to anyone who has never made real use of it; but if exactly that distinction is not made plain, and into a habit of mind and speech, the notion of set is valueless in later mathematical reasoning.

On the other hand, SMSG and its imitators were also guilty of some pointless pedantry, ridiculous even if logically correct: “Write the numeral that names the number solving $3x - 7 = 8$,” for example. That’s not even English. If you actually ask a mathematician to write down his phone number, he will cheerfully hand you a numeral without a moment’s hesitation or apology. He can make the dis-

inction, sure, but he only does it when it counts.

Just the other day I heard an aging academic say that Marxism hasn’t failed, because it hasn’t been tried—not an original trope, for we have heard the same of Christianity for ages. Had SMSG really been tried? The mass of American teachers—and children—were not, in the end, exposed to, let alone taught, what the SMSG mathematicians prescribed. But to plead thus is only to evade responsibility.

Oliver Wendell Holmes once wrote that the American Constitution is an experiment, “as all life is an experiment.” Experimental scientists like Holmes understand that reality is not to be pushed around, neither by nine old men nor by a prestigious bunch of mathematical geniuses with a pipeline to the U.S. Treasury. Their prestige was unchallenged, their genius without peer, and their pipeline of pure gold; but the realities overwhelmed them. The cadre of teachers already out there had preexisting interests and capabilities, the public patience was shorter than experiments that could lose a generation of children, and the educational experts, the PEB, was gathering its strength for the political battle that finally turned the pipeline back in their direction.

Toward the end, Begle wrote, “I see little hope for any further substantial improvements in mathematics education until we turn mathematics education into an experimental science, until we abandon our reliance on philosophical discussion based on dubious assumptions, and instead follow a carefully constructed pattern of observation and speculation, the pattern so successfully employed by the physical and natural scientists.” Begle himself died a disappointed man six years later, though he had continued after SMSG to work brilliantly toward a proper study of mathematics education. His disappointment was for the future more than for SMSG, because he foresaw correctly that PEB-sponsored research in education would not follow his sensible, if unexciting, prescription.

Meanwhile, the PEB, having taken back the schools, resumed educating its future leaders with exactly the “philosophic discussion based on dubious assumptions” Begle had warned of. It was the education of teachers that Begle had come to see as the truly intractable problem. SMSG, for all its faults, could solve

the problem of choosing, pacing, and stating an excellent curriculum; another ten years’ experimentation would surely have removed what Duren called its “excessive enthusiasm for logical language,” for example. But the SMSG institutes had been hopelessly inadequate to the training of teachers, and the PEB is perforce in charge of the next generations. There is no market in sight for even a perfect SMSG curriculum.

The textbooks today are again not written by mathematicians, and indeed show no sign of SMSG influence. They have eliminated the “set theory” that they had hailed in 1975, and they are quite silent about numerals; so much is to the good. On the other hand, they contain even less mathematics than they did in 1955, except that at the college-preparatory upper levels some of them, intended for superior students and teachers, are a great deal better. The books for grades one to eight come packaged for teachers with mountainous “Teachers’ Guides,” in which the mathematics is swamped into insignificance by the instructions on engaging the attention and improving the self-esteem of the students.

The general mathematical literacy, not notably improved by SMSG, has continued its decline under PEB management as well. Developmental psychology, not mathematics, informs the seminar rooms of the schools and the teachers colleges, while at the higher levels the research journals of the PEB are filled with what almost every mathematician today would condemn as being at least a waste of time.

Perhaps an example is in order. The anthology *Perspectives on Research in Effective Mathematics Teaching*, published by the National Council of Teachers of Mathematics, contains these insights:

As opposed to the contextbound ascription of meaning in everyday language use, scientific theories are presumed to rest upon the strict use of their technical terms. Researchers often pick the labels (the words, the ‘signifiers’) for their key categories following a contiguity relation between the concept (the ‘signified’) they have in mind and one specific of the many facets of meaning ascribed to the word in everyday use. . . . The construction of a metatheory capable of executing the critical comparison of com-

peting theories will fail due to the impossibility of an uniting meta-perspective and because of the (related) nonexistence of a universal language. How to proceed, then?

Good question.

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POLITICS

Merry Kwanzaa

by Nicholas Stix

What are you doing this year for Kwanzaa? This was once a ludicrous question, but in today's urban America public agencies, newspapers, and businesses trip over themselves showing their unqualified support for this anomalous occasion. Presented now as a religious, if not a national event, Kwanzaa immediately follows the "Judeo-Christian" holidays. It is one thing to wear mismatched socks, and another altogether to mix and match politics and religion. After all, those who have most vociferously supported Kwanzaa's establishment are the same folks, white and black, who are always on the lookout for displays of religious faith as benign as a menorah or Christmas tree in a public square.

Kwanzaa is so established in government-sanctioned public life that an otherwise valuable, remedial writing textbook, *Evergreen*, reports that "Maulana Karenga introduced Kwanzaa to America in 1966." Kwanzaa was not *introduced* to, but *invented* in America by Karenga (a/k/a Ron Everett). It is one of those pseudo-African practices, like naming children "Tawana" or "Lakeisha," or wearing "crown" caps, that confirm real Africans' worst misgivings about American blacks.

Kwanzaa exists to enhance black Americans' self-esteem via a zero-sum calculus that requires them to insult "European Americans." The very term "African American" bespeaks superiority

to its black users; "European American" is a half-educated obscurantist's version of "honkey." As per philosopher C.I. Stevenson's concept of "persuasive definitions," Afrocentrists seek to impose terms of discourse that confirm their beliefs without the need to argue them.

In December 1994, a columnist in Harlem's *Amsterdam News*, New York's oldest black newspaper, complained that commercialism had soiled Kwanzaa's purity. Conversely, in his 1994 pamphlet "Kwanzaa," Harlem community activist Cedric McClester gave "a special thanks to Mr. Jose Ferrer, a true marketing genius and a living example of the Kwanzaa principles":

The true significance of Kwanzaa lies in the seven principles it is based on. Unity, self-determination, collective work and responsibility, cooperative economics, purpose, creativity and faith are not only good principles to live by, they are also universally recognized as proper guides for cohesive socialization.

Most Afrocentric statements of faith are meant to be taken literally by white devils, but read "Black" by "Africans." If the seven principles of Kwanzaa were "universally recognized," there would be no need to state them, and they would be out of place in a specifically black celebration couched in East African Kiswahili ("Umoja, Kugichagulia, Ujima, Ujamaa, Nia, Juumba, and Imani"). One hears always from black nationalist leaders and their "progressive" white stooges of the need for "unity against those who would divide us," as if Martians were coming from outer space to break an indivisible human solidarity. The solidarity, of course, is that of black nationalists against whites—and black opponents. It never occurs to black nationalists' white supporters that they play the role of "Uncle Toms," prostrating themselves before those who hate them because of their skin color.

White "liberals" demand respect for blacks' "right to self-definition." Fair enough—if blacks want to celebrate Kwanzaa privately. But as part of a consciously anti-Christian movement, Kwanzaa owes what popularity it enjoys entirely to its having been imposed on children, black and nonblack alike, through public schools and publicly

funded agencies, often with the help of powerful whites. Not only is its establishment unconstitutional, but liberals who denounce every attempt to reintroduce public school prayer have been curiously quiet regarding the state establishment of Kwanzaa. Apparently, some self-definitions are more equal than others.

McClester claims that Ron Everett/Maulana Karenga's invention, which "began as a cultural idea . . . blossomed into the only nationally celebrated, indigenous, non-religious, non-heroic, non-political African-American holiday." That's a lot of "non's." Just before denying that Kwanzaa is a religious holiday, McClester praises Allah. Immediately after denying that it is a political holiday, he describes Kwanzaa as "an expression of [Everett's] nationalist Us organization." He denies that Kwanzaa is a "Christmas substitute," only to note that "Dr. Karenga recognized the undue hardship that the over-commercialization of Christmas has for black people and others who are at the lowest rung of the social strata. Therefore, those who find Kwanzaa to be more meaningful to them, now have an option and can still be part of the holiday season." Are we to believe it is a mere coincidence that Everett/Karenga chose the week of December 26-January 1 to celebrate Kwanzaa?

In other words, no matter how one views it, Kwanzaa poses problems. If Kwanzaa is political, why should Americans recognize a holiday not the property of all the people? And if Kwanzaa is religious, then it has no claim on public propagation, unless other religions get parity.

To be sure, for most black nationalists Kwanzaa and the Afrocentric counterculture it is a part of represent little more than fast-buck schemes. However, for Kwanzaa's empire-building founder and his politically influential supporters, this counterculture provides a racial stronghold in which blacks can be as "nasty as they wanna be," a counter-religion to destroy Christianity, and a state-within-the-state that seeks, ultimately, to destroy the state surrounding and supporting it. Too many of Kwanzaa's white supporters have a sentimental attachment to the notion of a Marxist worker's revolution that long outlived their connection either to Marxism or labor. They refuse to face the fact that race, while a potentially revolutionary factor,