... One thing is certain—it's too late for a scientist to merely boycott a meeting or two.... The only argument of any importance made by either side is, to quote Boffey's article: "Outside scientists should maintain contact with Detrick in accord with the principle of civilian control over the military." This compressed statement contains the essential principle. If you let students take over the campus, you'll get action, but who is held really responsible when the fires are finally put out?

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TV for Disadvantaged Children

The Children's TV Experiment ("News in Brief," 26 Apr., p. 401) described a program to begin in the fall of 1969 for teaching preschool children and aimed at "stimulating the intellectual and cultural growth of children—'particularly those from disadvantaged backgrounds.'"

What disadvantaged preschool child has a 1-hour attention span—and one which can last 5 days a week for 26 weeks? Should preschool children, whose eyes are not fully developed, be staring at focal objects for protracted periods? How many disadvantaged homes have TV facilities? How about disadvantaged rural children who do not have access to National Educational Television? Isn't this discrimination? Shouldn't an investigation of these factors be made before going ahead with a \$6- to \$8-million workshop plan?

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Eclipse of Jacob

To bolster the morale of the scientific establishment shaken by the flight of our young from physics ("Physics and the polity," 26 Apr., p. 396), I offer this singular thread of hope. In answer to a religious school exam question: "Name the three patriarchs," one of our brightest fourth-graders listed: "Abraham, Isaac, and Newton."

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21 JUNE 1968

Better Research—Better Teachers

Bresler in "Teaching effectiveness and government awards" (12 Apr., p. 164) concludes that "the faculty member who is interested in publishing and in acquiring funds for research and other means of personal development . . . is likely to be a better teacher." While we agree with this position, he has not provided an answer to the assertion "that research efforts by professors were destructive to the teaching functions of universities." He also has not replied to the fallacious expression that research energy directed toward improvement of instruction and helping students would make the professor a still better teacher.

Science is a process, a way of thinking, which cannot be transmitted from teacher to student by the enumeration of encyclopedic content but which must be learned by participation. Since every student cannot participate in a meaningful way, the solution must lie in his having contact with practicing scientists. When we substitute professional teachers, full-time introductory instructors, and teaching fellows we extend prep school training to the university. I expect that science is not unique; music is best taught by musicians, art by artists, and literature by writers. Surely the student does not pay his money and, more important, spend his time, to receive third- and fourthhand knowledge. He comes to the university to participate in the activity of scholarship, and scholarship is research, writing, thinking, discussing, and participating in the subject.

We deny the student and the financial supporters (taxpayer or alumni) their just due when we fail to provide an atmosphere where the student can participate in academia. When the burdens of the professor preclude his participation in scholarship, we are not using our very limited resources to provide appropriate university instruction. These burdens include oversized teaching assignments, too much committee work, pointless clerical and demanding money-raising duties. Do the burdens also include spending extensive amounts of time applying to granting agencies for money to support a program of scholarship compatible with the modern state of knowledge? DAVID L. JAMESON

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Model experiment with glycogen, glucose, sugar phosphates and adenosine phosphates on a column of DEAE-Sephadex A-25. (From Biochim. Biophys. Acta 74 (1963) 588, by permission of the autor)

Anion Exchangers						
Туре	Grade	Ionic Form	Capacity (meq/g)	Bed Volume ¹ (ml/g)		
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QAE- Sephadex A-50	40-120µ	cı-	3.0 ± 0.4	30-40		
DEAE- Sephadex A-25	40-120µ	cı-	3.5 ± 0.5	5-9		
DEAE- Sephadex A-50	40-120 <i>µ</i>	cı-	3.5 ± 0.5	25-33		
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Туре	Grade	lonic Form	Capacity (meq/g)	Bed Volume ² (ml/g)		
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SE- Sephadex C-25	40-120μ	Na+	2.3±0.3	5-9		
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