The **Algebra Project** and Democratic Politics

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I FIRST READ about the Algebra Project in February 1993, in a New York Times Magazine article profiling Bob Moses, the legendary former field director of the Student Nonviolent Coordinating Committee (SNCC), who in the 1960s had courageously promoted black voter registration and civil rights in Mississippi. Entitled "Mississippi Learning," the piece celebrated Moses's current career as a math educator dedicated to enhancing the educational prospects and economic opportunities of poor, mainly African-American children, presenting this career as the true fulfillment of Moses's prior activity as a democratic activist and civil rights leader.

I found this story heartening, but of little political interest until two years later, when I read Meta Mendel-Reyes's Reclaiming Democracy: The Sixties in Politics and Memory, and discovered that Reyes too found Moses's story powerful--as an example of the effacement of historical memory about the true significance of the participatory democracy for which SNCC struggled. Instead of telling this story, Mendel-Reyes wrote, "the Times tells a generic story of a young radical who grew up, setting aside childish politics for a career which promises to improve the lives of individuals without threatening the unequal distribution of power. At most, Moses's students may be better able to calculate the widening gap between their own incomes and those of the rich." While praising Moses's sincerity, Mendel-Reyes questioned "how math literacy can replace the key to citizenship for which Moses and SNCC fought during the sixties: the right to participate fully in politics." Mendel-Reyes, to be sure, was principally concerned with the Times's treatment of the "maturation" of Moses the sixties radical rather than with Moses himself, linking this treatment to other instances of media trivialization of sixties radicalism. But she left no doubt that, for her, Moses's current activities were insufficiently radical, forswearing an assault on "the unequal distribution of power" in favor of a more meliorist, mainstream effort to promote math literacy as a route to conventional economic advancement.

BUT JUST what exactly would a wholesale attack on "the unequal distribution of power" look like, and is such a vision even remotely plausible under current conditions? Mendel-Reyes voiced standard "left" charges against meliorism and narrowness of vision; yet it struck me as politically impractical, and set me to thinking anew about Moses and his Algebra Project. What is the political significance of the project? Does it represent an innovative experiment in democratic citizenship or does it embody a conventional, and fairly conservative, vision of schooling as an avenue of individual mobility? Does it represent a compromise with existing institutional arrangements or a creative way of challenging them? The project is intrinsically interesting because of Moses's historical importance and his personal trajectory as a radical activist, and it raises questions about the legacies of the sixties.

But beyond this, the project represents an innovative attempt to address problems of poverty and inequality, especially in inner cities plagued by both. That American inner cities are the sites of extraordinary economic deprivation and cultural despair is beyond question. That there currently exists no political will to address this matter is equally beyond question. This situation has many dimensions, but perhaps none is as troubling as the crisis of inner city schools.

In his Savage Inequalities: Children in America's Schools, Jonathan Kozol offers a bracing account of the physical, moral, and pedagogical decay of these schools, and of the extraordinary disparities in funding, resources, and educational quality between such schools and their suburban counterparts. Kozol takes us on a tour of East St. Louis, Illinois; the South Side of Chicago; the South Bronx in New York; Camden, New Jersey; Washington, D.C.; and San Antonio, Texas, and he introduces us to frightened and grossly undereducated children, demoralized and cynical teachers and school administrators, unstaffed, ill-equipped, and overcrowded classrooms, and decaying and polluted buildings that are literally hazardous to the children and educators who occupy them. Kozol quotes extensively from these educators, who repeatedly refer to "landscapes of hopelessness" and "the overwhelming sensation [of] emptiness."

The Algebra Project seeks to address this reality in a disarmingly modest way--by promoting math education and

literacy among disadvantaged youth. In an age in which "welfare as we know it" has been repudiated by both major parties, and social democratic solutions to socioeconomic problems are in disrepute, the Algebra Project has to be interesting.

WHAT IS IT?

The Algebra Project is a nonprofit organization founded by Bob Moses in 1982, and incorporated in 1991, that seeks to promote math literacy among disadvantaged children. It is based in Cambridge, Massachusetts, with an additional office in Jackson, Mississippi, that directs the project's southern initiative, which works in a number of cities but also in some of the most impoverished rural areas of the Mississippi Delta. Since its inception the project has served over fifty thousand students in more than one hundred American cities, from Boston, New York, Milwaukee, Indianapolis, and Chicago, to Oakland, Los Angeles, San Francisco, New Orleans, and Jackson, Mississippi.

The project does not offer a freestanding curriculum or present itself as a wholesale alternative to the existing curricula and educational practices of American public schools. Instead, it views itself as a form of pedagogical inspiration for local efforts to enhance educational performance. The national office and its southern branch offer curricular support, teacher training, community-organizing assistance, and practical advice on how to promote math literacy. Although these offices participate in outreach activities, the project is implemented in particular schools and school districts because of the commitment of local actors--parents, teachers, principals, administrators, and students themselves--who make the necessary arrangements so that the project's goals and methods can be incorporated into existing school systems. The project relies upon the development of local coalitions as a matter of practicality and philosophical commitment.

The project rests on two premises that are widely shared by math educators and pedagogues more generally--that algebra is a "gateway" subject necessary for advancement to higher education, and that the practice of educational tracking, in combination with deteriorating urban school systems, has produced inadequate academic preparation and extraordinarily high dropout rates among disadvantaged youth. Moses has argued that this educational crisis subverts democratic equality and impairs citizenship in much the same way that the denial of voting rights in the South did a generation ago. Black sharecroppers, he writes, "didn't have the citizenship requirements of their age. And so they were serfs, absolutely without power. What is happening today is that we are watching the new serfs emerge." These problems of educational disadvantage are exacerbated by the new communication technologies, for these demand new standards of mathematics and science literacy to which inner-city minority and poor youth are denied access. "Unless there is a dramatic turnaround in education for these communities," Moses writes, "we face the prospect of a permanent underclass who, generation after generation, will live on the margins of the nation's economic and political institutions. These constituencies and their Black and Hispanic subsets are in a crisis which the nation has only begun to articulate with a sense of urgency. Only with an increased sense of urgency and a deep commitment to enabling full access to the political and economic institutions of this society can we hope to develop solutions to this crisis."

The Algebra Project seeks to combat this through an innovative, Deweyan curriculum centered around viewing mathematics as a language of problem solving rather than as a set of abstract calculating skills. The curriculum involves a five-step method of teaching math concepts that begins with practical problems associated with such ordinary activities as traveling, cooking, coaching, repair work, and music. Students are encouraged to solve problems, to formulate what they have learned in colloquial and then standard English, and finally to translate ordinary language into mathematical symbols. The example usually cited in the literature is Moses's practice of taking students on a ride on the Boston subway system, using "the mathematics of trips" as a way of teaching about positive and negative integers. Ordinary problems associated with calculating and comparing distances are treated as vehicles for teaching abstract mathematical concepts. In the project's more recent African drums and ratios curriculum, students are taught how to construct their own drums, and in the process are encouraged to use their knowledge of rhythm to learn about numerical intervals and proportions.

Also Deweyan in inspiration is the project's participatory model of pedagogy. The math teacher is viewed as a facilitator rather than as an instructor in rote calculation and memorization. Mathematical operations are treated as parts of a larger learning process in which students share experiences and solve practical problems through small-group discussion and cooperative effort. And math learning is treated not as a separate cognitive skill but as a problem-solving tool whose use is connected to a broader process of intellectual inquiry.

EVEN MORE distinctive is the project's self-consciously communal character. One commentary notes that "by linking the content of math education to the future prospects of inner-city children, Moses transformed what had previously been a purely curricular issue into a broader political question.... How can a culture be created ... in which every child is expected to be as good as possible in his or her mathematical development?" In helping to create such a culture Moses and his colleagues have drawn on his practical experience as a SNCC activist. As Moses

has described his approach: "What this comes down to is the philosophy of Ella Baker: leadership at the grassroots level. The campaign in Mississippi was mounted with virtually no money. It required a consciousness that leadership to run the effort would emerge from the communities who were working, and it required trying to develop an organizational structure which would encourage the emergence of such leadership."

The Algebra Project similarly seeks to enhance local leadership and to build community at the local level. Parental empowerment is central to the vision. The project has facilitated the organization of Honors Bound parent support groups, helped to promote Saturday-morning algebra courses for parents, and encouraged parental classroom volunteering, in the belief that enhanced math education is a family concern that extends far beyond the formal curriculum and requires a dense support system and adult role models. The project's southern initiative has also helped to establish a Math Games League in Jackson, Mississippi, where student teams participate in after-school and weekend math competitions. The basic idea is to promote a variety of extracurricular activities involving students, parents, and teachers that provide safe and constructive outlets for adolescent energy and at the same time develop mathematical ability and intellectual self-esteem.

WHERE IS THE POLITICS?

Although the project is clearly an interesting educational effort, its political significance is less clear. Indeed, in conventional terms it seems apolitical, a modest effort to pursue educational enhancement through fairly conventional means--curricular revision, teacher support, parental involvement. Indeed, the project quite explicitly forswears any broad political agenda and professes to be "concerned more about the immediate circumstances of the emerging underclass than in settling large-scale policy questions." While the project is clearly inspired by a conception of "participatory democracy" rooted in the SNCC experience, both its goal of enhancing the college-entrance opportunities for disadvantaged youth and its means of pursuing this goal hardly seem radical in any profound sense.

Yet I think we need to get beyond conventional understandings of "political" and "radical" to appreciate what the project is trying to accomplish. Promoting community networks of educational support that involve youth, parents, teachers, and professionals is in many ways a profoundly political and indeed radical endeavor given the current conditions of life in American inner cities. The project seeks to mobilize civic energy, to build intellectual but also civic capacity, and in doing so to transfigure the conditions of life of the new urban poor. Moses has seized on math education as a vehicle for something much more significant--what might be called democratic community-building. In Boston, for example, the project's fate was linked to the establishment of a dense network of support that included affiliation with Freedom House, a community-based organization, and the joint establishment of the Summer Academy, an algebra camp incorporating project ideas; the cultivation of working relationships with educators at University of Massachusetts/College of Public and Community Service, Wheelock College, and Northeastern University; and the establishment of an Algebra Consortium joining university personnel, community-group representatives, and interested individuals in support of the project; the acquisition of a grant from the Hasbro Children's Foundation to support project outreach activities in the Boston area; and discussions with school officials that eventually led to development of an Algebra in Middle Schools Project that was implemented in three Boston schools. In Indianola, Mississippi, a Math Games League Board was started as the result of a collaboration between the project's southern initiative and Southern Echo, a Jackson-based community organization dealing with environmental racism and local economic development. When the school board challenged the League's right to after-school access to local schools, community mobilization, spearheaded by a Steelworkers' local, led to a reversal of the board decision and to guarantees of community access to the schools.

Because the project is a national network of local efforts, there is no single recipe for building community support or effecting school reform. In some areas, like Chicago, Algebra Project affiliates are linked to community organizations that are highly politicized around school-board issues, community economic development, and electoral politics. In other areas, like Indianapolis, the project's sponsors are more narrowly focused on math education. But what joins these various local efforts is a common commitment to educational enhancement through community involvement.

THERE IS a vaguely communitarian conception of society at work here. The project's literature clearly indicates a general awareness of the forces that reproduce inner-city poverty and despair and undermine the educational advancement of disadvantaged youth. "Community," in the sense of a dense network of families, schools, intermediate associations, and economic opportunities, is recognized as a problem in inner-city neighborhoods, as something that is not preexisting and needs to be developed through painstaking effort. Yet the project does not construct the social universe in terms of ruling or dominant classes or power elites that must be dethroned. Instead it seems to work with a fairly capacious view of the inner city, according to which a range of "stakeholders"--parents, teachers, school bureaucracies, community organizations, local universities and colleges, corporations, philanthropic foundations, and students themselves--might be mobilized behind the effort to promote math literacy and, ipso facto,

to promote civil society rather than anomie, despair, and violence. Constructing the political universe in this way is not necessarily naive; it does not presuppose that there will be no scarcity of resources, or conflicts of interests, or efforts on behalf of more powerful groups to frustrate project attempts to alter curricula, allocate educational resources, or utilize school facilities. But project supporters argue that the only way forward is to create local forms of power capable of forestalling such resistances. These forms of power are not political in the conventional sense, for they involve no parties or elections, present no broad legislative agenda, and, more profoundly, they are not principally oriented toward the wielding of governmental power. The project seems to understand power in Hannah Arendt's sense, as the capacity of a collectivity to organize itself and to generate a sense of common purpose and commitment. Yet in mobilizing or constituting this power the project clearly seeks to effect change in a public and palpable way, and in this sense is supremely, if modestly, political. It does this in the following ways:

1. By treating the public schools as a primary space for the development of both individual cognitive aptitudes and the civic capacities of neighborhood residents. The project treats schools as genuinely public facilities, available for use by citizens during after hours and on weekends--recalling the "social centers movement" of the Progressive era pioneered by Frederic Howe and Edward Ward (and supported by Dewey), which similarly sought to use the schools as "community centers" of recreation, culture, discussion, and debate.

2. By establishing a financial base that draws upon both public and private sources of support and that expends private monies in public ways. Although the project relies upon some governmental support--a substantial National Science Foundation grant, but more important, the agreement of public schools and school boards to allocate teachers, class time, and building space to project activities--most of its support has come from grants obtained from an impressive array of philanthropic foundations, from local agencies such as the Boston Foundation and the Greater New Orleans Community Foundation, to national philanthropies such as the MacArthur Foundation, the Lilly Endowment, and the Open Society Institute (which committed $12 million to the project's efforts in 1997). In this sense the project is an example of those "third sector" organizations occupying the space between the market and the state, fulfilling public functions with largely private resources that have received growing attention in recent years. Such organizations have been defended as vehicles for discharging public responsibilities in a time of governmental austerity and for generating public trust and a sense of efficacy in an era of disenchantment with politics.

3. By promoting a heightened sense of parental responsibility for the education of children, for the effective operation of schools, and, by extension, for the well-being of neighborhoods. "The family" has been a subject of great controversy in recent years, with conservatives claiming to support the reinstatement of traditional "family values" associated with male-headed, two-parent, heterosexual families, and cultural liberals criticizing the bourgeois family as a "patriarchal" and "heterosexist" institution possessing no special moral privilege. The Algebra Project approach to parental responsibility is consistent with a growing emphasis on a nonmoralistic understanding of family life. On this view, instead of celebrating or condemning "the family," we need to recognize that parents play an absolutely indispensible role in the education of young people, and that parental responsibility and involvement, particularly in disadvantaged neighborhoods, has to be actively promoted, not simply by exhortation, but through the creation of institutions--like regular school volunteering or weekend math classes or mentoring programs--that are genuinely enabling. For liberals, this move involves an acknowledgment of the importance of intermediate institutions and the "limits of social policy"; for conservatives, it involves an acknowledgment of the potentially empowering effect of public, governmental support for institution-building in civil society. As Robert L. Woodson, founder and president of the National Center for Neighborhood Enterprise, has maintained: "We must recognize that the survival and proliferation of ... these grassroots efforts will depend not only upon removing impediments they face but also [on] providing substantial support for their work. If we wish to enjoy the fruits of a civil culture, we must be willing to nurture the trees that produce it.... This is not a time for benevolent nonintervention."

4. By the promotion of broad-based coalitions of youth, parents, educators, and community leaders on behalf of educational reforms that have wide effects on community life, establishing networks and associations with potentially more direct political consequences for neighborhood safety, police accountability, the delivery of public services, and economic development.

Such an effort at community building is clearly a public activity even if it is not directly political in the conventional, governmental sense. The project's modesty should not be mistaken for complacency about economic inequality or racism. Indeed, it can be seen as a reflection of consummate political realism. As Moses has said: "I don't think that at this point you're going to advocate any major reforms ... the energy that we have needs to be put into ... getting the target population to a level of consciousness and competence [so that these youth] can carve out for themselves ... a way to struggle [regardless of] the broader domain [beyond their control]." As this comment indicates, two notions lay behind the project's modus operandi. The first is that for the "target population" of poor, inner-city youth and their families, developing a sense of personal efficacy and social solidarity is a precondition of

any more-explicitly-political activity. The second is that the political prospects for major reforms are rather dismal. For these reasons, Moses suggests, a more modest effort recommends itself.

THE LIMITS OF CIVIL SOCIETY?

The Algebra Project is still in its relative infancy. As I have noted, since its incorporation in 1991 it has served approximately fifty thousand students. This is no mean feat, but it is still a minuscule proportion of the total population of American middle-school children. The evidence of its success is mostly anecdotal, in the form of numerous newspaper, magazine, and journal articles quoting teachers, principals, parents, and students attesting to the inspirational power of the project's curriculum, to the effectiveness of Math Games in getting at-risk children off the streets, or to the higher proportion of students graduating to advanced algebra and moving on to college. Most of this evidence is positive, but it is too unsystematic to allow any solid generalizations.

More telling is the project's favorable review by such reputable and highly competitive foundations as the National Science Foundation (NSF), the Lilly Foundation, and the Open Society Institute. The 1994 NSF evaluation, for example, concluded:

The Algebra Project is an important project with a potential to bring about systemic reform in Mississippi schools serving poor children in both rural and urban areas. Although in effect for only two years, we observed positive outcomes in teaching, in students' attitudes and engagement in and around mathematical ideas, in community involvement, and in movement toward systemic reform.... The community development process is engaging parents and others who have not previously been involved in education issues. The project is building a strong foundation for systemic change through its unique process of bringing the key stakeholders together and facilitating their involvement in children's mathematics literacy.

In June 1996 the project was formally evaluated by the Program Evaluation and Research Group (PERG) of Lesley College in Cambridge, Massachusetts, whose report was funded by the MacArthur and Lilly Foundations. Like the NSF report, the PERG report praised both the academic seriousness and the community organizing focus of the project, concluding that it is in a "unique position" to be "an agent of systemic change."

The PERG report also called for a more systematic process of self-evaluation and noted a number of obstacles to the project's success. One is the power of entrenched educational interests, which tend to resist project methods. The routine practice of standardized and systemwide testing and the movement toward more rigorous measures of academic aptitude are serious obstacles to the kind of holistic and collaborative learning and community building promoted by the project. Schools that choose to affiliate with the project often place themselves at a disadvantage vis à vis the school system at large, where teaching is geared towards standardized tests; and pressures toward homogenization limit the freedom to experiment with more eclectic methods of instruction. Furthermore, many aspects of the project's holistic, community-building approach seem to fall outside the purview of mathematics education broadly defined. Can parental involvement or student self-esteem, for example, be scored in the same way as the ability to calculate? Is the strengthening of civil society likely to be viewed by educational bureaucrats as a central or even an appropriate goal for the expenditure of funds legally earmarked for "education"?

The power of teachers' unions and the elaborate requirements and restraints fixed by collective-bargaining agreements also often limit the operation of the project. It makes special demands on teachers, requiring training and preparation and, even more important, community involvement and the expenditure of time, before school hours, after school hours, and on weekends. These extracurricular demands, especially when uncompensated, are, understandably, often resisted by individual teachers, by their unions, and thus by principals and administrators bound to respect collective-bargaining agreements and bureaucratically determined work rules.

A second, related difficulty concerns the need for a greater resource base, requiring in part that the project be "institutionalized in schools and, therefore, supported by school based funds." A very high percentage of project funds currently comes from "soft money" grants. If the project is to succeed, it will need more stable and public financial support. And, ideally, teacher release and after-hours time would be compensated by school systems committed to the project's methods.

The above issues implicate broad questions of educational policy and school reform, questions about which the project does not seem to have developed any clear programmatic answer. They suggest that in order for the project to succeed in its own professed mission it may have to enter the broader political arena or at least engage in advocacy regarding educational reform. In the absence of success in this area, it appears that the project will remain vulnerable to decisions taken at higher levels by teacher unions, school boards, and foundation boards, and its performance will be contingent on a multitude of unpredictable local forces.

The forces beyond the project's control, however, extend far beyond the school system itself. Perhaps the greatest obstacle to the project's success is the broader social environment of the new urban poverty in which it operates. As we have seen, the project claims to be "concerned more about the immediate circumstances of the emerging underclass than in settling large-scale policy questions." But is it possible to successfully address the "immediate

circumstances" of undereducation without addressing "large-scale policy questions" regarding criminal justice, urban redevelopment, welfare, health care, and employment? If William Julius Wilson and others are correct, the problem of poverty can only be addressed through a coordinated public policy effort. Yet the project's resolute focus on the immediate circumstances of math literacy seems to limit its ability to agitate on behalf of any such effort.

THIS RAISES an even deeper problem with project strategy. The project views the new information technologies as both challenge and opportunity. Absent math literacy, Moses insists, disadvantaged youth will become virtual "serfs" lacking access to economic opportunity; possessing such literacy, he maintains, such youth will be afforded "participation in the unfolding economic and political era." But this argument presumes that the unfolding economic and political era presents general opportunities and promises prosperity to those possessing the appropriate skills. It views the technological and occupational shape of the unfolding era as a foregone conclusion, and simply--though importantly--seeks access for disadvantaged and minority youth. But what if this picture is misleading? What if intensifying inequality and insecurity is built into the very changes to which the project seeks to adapt? What if the current "third wave" of technological change promises success for some but threatens to drown many others, not simply because they lack the requisite skills but because the new economy will need fewer full-time workers, and will rely increasingly upon contracting out, temporary employment, and other forms of "lean and mean" production?

These, of course, are complex issues, about which much more needs to be said. But it would be fair to argue that the Algebra Project works with an optimistic view of the potential of the new technologies that is not wholly warranted; and that its reluctance to develop a critique of political economy constitutes a potentially serious weakness. Indeed, it discloses a latent tension between two possible meanings of the "empowerment" promoted by the project--on the one hand referring to individual career advancement, on the other hand referring to collective action on behalf of publicly generated and governmental remedies to social problems. As Project literature insists, these two forms of "empowerment" should not be counterposed, and ideally they would reinforce one another. But without attention to the broader public-policy questions regarding the availability of jobs and housing, promoting employability is likely to do little more than broaden the pool of those fighting over the crumbs of "third wave" expansion.

SISYPHEAN POLITICS

These limitations of the project's strategy are real. Yet identifying them only constitutes an indictment of the project if a plausible case can be made that there is a more "realistic" strategy for addressing the "landscapes of hopelessness" vividly depicted by Kozol and others. Absent such a compelling strategy, the limitations identified here add up to one general point about which project organizers are painfully aware--that they operate in an unjust and recalcitrant world that presents obstacles, resistances, and continual challenges. The question of whether such a compelling, broad political strategy exists and is realistic goes beyond the scope of my argument here. Suffice it to say that an affirmative answer is hardly self-evident. Indeed, Moses himself seems closer to the truth when he insists that "I don't think at this point you're going to advocate any major reforms...."

The Algebra Project is a modest and flawed attempt to counter deeply entrenched and powerfully reinforced effects of urban poverty and neglect. It is not alone. Throughout the country similar projects are sprouting up, as citizens confronting federal cutbacks are forced to address urban problems in more improvisational and grass roots ways. Starved for funding and occupying a hostile environment, these kinds of efforts cannot be expected to master their difficulties or to "solve" the problems against which they set themselves. They are in need of governmental assistance, and are likely to continue to confront frustration and failure in the absence of a significant shift in public policy. But such a shift does not seem forthcoming. And in its absence, such efforts demonstrate two exemplary virtues. First, they represent modest, nonideological, practical efforts to deliver services and to remedy pressing problems. Second, in the absence of generous public funding or bureaucratic support, they seek to mobilize the only resource available--concerted human effort, civic energy, ordinary idealism--in order to craft genuinely participatory responses. Groups like the Algebra Project cannot be assessed simply in terms of their measurable impact upon educational performance, or the incidence of teen pregnancy or gang violence, or the availability of affordable housing stock. While these practical results are surely important, the greatest contribution of such groups is less tangible, and indeed incalculable--the generation of solidarity and civic responsibility, and the promotion of active, practically oriented citizenship. They may not position themselves in a frontal assault on the structure of power. And they may never conquer their adversity. But they alter the political equation and afford pride and hope where these are in desperately short supply. For this reason they deserve the serious and sympathetic attention of all who profess their commitment to democratic values.

ADDED MATERIAL

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