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Panel III: Educational and Social Scientific Perspectives on All-Female Education

*Dr. Janice Koch **

DR. JANICE KOCH: I am a science teacher educator, and my research has been engaged in encouraging the participation of girls and young women in all areas of mathematics and science. I spent a great deal of my time, first, as a teacher in a coeducational private school in New York City in the sciences for about 12 years, and then as a consultant to both single-sex and coeducational schools all over the country where young men and young women are engaged in what I call locating their scientific selves in grades 7 through 12. My remarks are shaped for you, therefore, as a former science teacher, a current science teacher educator, and an observer of single-sex and coeducational environments that I also write about. I'm also going to try and integrate some of the remarks that were made in previous panels this afternoon.

First of all, there is very little consensus, as we approach the beginning of a new millennium, about what the image of the student who will emerge after more than a decade of compulsory schooling should be.

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I mean, what should this student, regardless of gender, now be able to do? What skills should we help students to develop in K through 12? How should this student develop the ability to think critically about social issues? I am fascinated by the uproar over the Young Women's Leadership School. I offer some personal reflections today on the issue of single-sex education and on the school itself for girls and young women, based on my own research particularly with mathematics and science, and many years observing dozens of classrooms. First, we are all reluctant to implement experiments in education,¹ although we desperately need to experiment to begin to shift the status quo.² There is enormous inertia in public schools.³ We do things the same way because we have already done them this way. When Bernice Sandler mentioned earlier the need for schools of education to address coeducation and gender bias,⁴ of course, it is a desperate plea. I, and my colleague, Charol Shakeshaft at Hofstra University,⁵ teach probably two of the few courses on gender and schooling and gender issues for the classroom⁶ that are available for future and current educators. Schools of education have begun to offer these courses to prospective teachers.⁷ We are all a part of what we are trying to change,

¹ *Single-Sex Classes: Our View*, USA TODAY, Apr. 25, 1996, at 12A (mentioning situations where "[e]ducation bureaucrats [] stymie promising local [education] innovations.").

² *Id.* (urging experiments in educational programs that would diminish discrepancies in learning between boys and girls).

³ *Independent Schools Would End Inertia In Restructuring*, SEATTLE TIMES, Mar. 29, 1997, at A9 (indicating that inertia has stymied attempts to restructure education).

⁴ *Gender Bias Tips Aimed at Parents*, SUN SENTINEL, Apr. 21, 1996, at 4E (recounting a parent's classroom observations highlighting the "subtle differences [in which] boys and girls were treated" in school).

⁵ See Liza N. Burby, *Dishonor Students/ Too Often Sexual Harassment Goes With the Territory at School/ And Most Kids Believe There's Nothing They Can Do About It. What To Explain to Your Children*, NEWSDAY, Oct. 12, 1996, at B01 (noting that Professor Shakeshaft is the Chairwoman of Administration Policy at Hofstra University and has written books on gender issues in schools).

⁶ *Peer Sexual Harassment: Ignoring It Won't Make It Go Away: Subtle Form of Violence Can Have Not-So-Subtle Effects*, SCHOOL VIOLENCE ALERT, Vol. 2, No. 5. Professor Shakeshaft teaches workshops to educators on gender issues in the classroom, such as preventing sexual harassment. *Id.*

⁷ See *id.*

and teachers come from all walks of life. They are enculturated with ways of being in the world that have developed by being raised in particular environments that foster beliefs about who can or cannot succeed, for example, in science, or who will or will not respond in class.⁸ I have an educator friend in Minnesota, (in fact, she is a former Minnesota state teacher of the year), who always says it is easier to move a graveyard than to change a curriculum. This thinking dominates the culture of the public school. Clearly, if coeducation was working in the best interests of fostering promising futures for girls, especially in mathematics, science, and technology, this sort of educational experiment certainly would not be undertaken.

Nobody truly looks at single-sex schooling for girls as a permanent solution to the problem of ineffective coeducation for middle school females. It is certainly not politically feasible to see this model as some sort of universal solution. I think it is important for us to keep this in context. We can look to single-sex schooling, however, to teach us more about what works in the best interest of encouraging girls, especially in the areas of mathematics, science, and technology (MST). We can look to the Young Women's Leadership School to help us shape an agenda that serves the education of all our students because what my research and the research of many others tell us, is that what really works well for girls in school, especially 7 through 12, is just good schooling.⁹ In the National Science Education Standards,¹⁰ the document published by the National Research Council to guide precollege science education, exemplary science teaching strategies matched those interventions cited by the

⁸ See *supra* note 2 and accompanying text (citing a study illustrating that boys and girls learn differently and advocating that educators should experiment with ways to teach both more effectively).

⁹ See generally Susan McGee Bailey & Patricia B. Campbell, *Gender Equity: The Unexamined Basis of School Reform*, 4 STAN. L. & POL'Y REV. 73, 83 (1992-93) (recognizing that "too many girls still do not receive an education that prepares them adequately for a world of work and economic independence.").

¹⁰ NATIONAL ACADEMY PRESS, NATIONAL SCIENCE EDUCATION STANDARDS MANUAL (1996).

various gender equity literature of the past twenty years.¹¹ Hence, what were found to be important interventions for encouraging female students actually are later described as valuable interventions for turning all students on to science.¹² These interventions include collaboration, cooperative learning, making personal connections, learning science over time, and more.¹³ Each of these interventions was originally described by gender equity experts as being valuable strategies for encouraging more participation by females.¹⁴ One of my favorite essays by Katha Pollit is the "Smurfette Principle."¹⁵ She reminds us that in all facets of media socialization for little boys and little girls, "[t]he message is clear. Boys are the norm, girls the variation; boys are central, girls peripheral, boys are individuals, girls types."¹⁶ The males define the story, ladies and gentlemen. Girls exist in relation to. Women exist in relation to. The default mode is always the male experience; females are always either playing catch-up or just trying to fit in.¹⁷ What would it look like to create a public school environment which has been done in so many privileged upper and upper-middle class private schools, where the default mode is the female experience? How would females be impacted? What would teaching and learning look like? What could we learn from this environment? What does it mean to a whole group of 12-, 13- and 14-year-old girls in a public school in New York to really feel physically

¹¹ *Id.* at 40-41 (recognizing that teachers must have a strategy that considers the students who are learning science and that inquires into the "authentic questions" raised by these students from their experiences).

¹² *Id.*

¹³ *Id.* at 41-42, 60-61 (stressing the importance of science as "a collaborative endeavor . . . [that] depends on the ultimate sharing and debating of ideas" which demands time and skill from teachers and students).

¹⁴ See BAILEY & CAMPBELL, *supra* note 9, at 80 (stating that exploring gender diversity by encouraging and accepting the individual will benefit both boys and girls).

¹⁵ Katha Pollit, *The Smurfette Principle*, N.Y. TIMES MAGAZINE, Apr. 7, 1991, at 22.

¹⁶ *Id.* But see Anita K. Blair, *Separate and Equal*, N.Y. TIMES, Nov. 20, 1995, at A15 (stating that "women are not oppressed in higher education . . . over 53 percent of students attending four year colleges in 1993 were women.").

¹⁷ See generally Pollit, *supra* note 15, at 22.

safe?¹⁸ Not to have their bra snapped, not to be felt, touched, called names, poked at?¹⁹ In an all-girl chemistry classroom that I observed in this country -- and admittedly I have observed them in private schools -- the young women in chemistry classrooms generate discourse, call out answers, express confusion, offer explanations, in an atmosphere of freedom and ownership that in one of the most prestigious private schools in New York City where I taught for 12 years absolutely doesn't exist. That is not to say that in the coeducational prestigious private school there were not smart girls out there, but the majority of the smartest girls in the class were very quiet. They were silent. In an atmosphere of freedom, the kinds of expressions these girls could put out there when they did not understand some of the nuances of the chemical equations, were very different. The reasons, by the way, for thinking about single-sex schooling cannot be stated simplistically. I read in one of the New York Times reports on the Young Women's Leadership Schools that it will be good for girls because they won't be distracted by the world.²⁰ This is not the deal, folks. This is not about the adolescent subculture necessarily. Certainly, that is a factor. I always get annoyed when I read that because it feels as though they are saying that you get rid of the boys so the girls won't be distracted.²¹ It is much more complicated than that. Simplistic explanations for trying public all-girls schools, middle schools, and high

¹⁸ See Rene Sanchez, *In East Harlem, A School Without Boys: Experiment With All-Girl Classes Taps New Mood In Public Education*, WASH. POST, Sept. 22, 1996, A1 (noting that at the YWLS the classes are not dominated by boys, there is no teasing and there is none of "that male bonding stuff" and recounting an American Association of University Women study that showed girls face significant sexual harassment in middle and high schools).

¹⁹ See *id.* (quoting a YWLS student, Albeliza Perez, "[t]here's not all the teasing. At my other school, some girls worried so much about boys calling them fat they wouldn't even eat.").

²⁰ See Jacques Steinberg, *Just Girls, and That's Fine With Them: At a New School, No Boys, Less Fussing, and a Freer Spirit*, N.Y. TIMES, Feb. 1, 1997, at 21 (discussing that although the girls at the YWLS are interested in boys, they prefer to do without the distraction of boys in the classroom during the day).

²¹ Kristin S. Caplice, *The Case For Single-Sex Education*, 18 HARV. J.L. & PUB. POL'Y 227, 267 (advancing that "the establishment of same-sex schools is substantially related to [] state interests because they permit students to learn free from other-sex distractions, making it more likely that academic achievement is their focus rather than social distraction.").

schools really need to be examined. It's more significant than attributes pertaining to puberty. It's systemic. It's the way we shape what is normal and what is acceptable in the classroom. The boys are the norm; the girls are lesser and therefore deviant. It is an old argument that runs deep. It is embedded in well-meaning teachers' beliefs about who can succeed in the high school chemistry classroom or the physical science classroom.²² And it is not intentional in the case of many of these teachers,²³ by and large, and it is not easily correctable.²⁴ It is a product of who we are; no matter what subject we teach in the classroom, we teach our children who we are. We respond to boys and girls differently, not because we want to harm girls, but because we have been raised to respond that way, because we are subject to media all the time.²⁵ I recently spent a day in Young Women's Leadership School. I admit, I wanted to like it. I went there excitedly, as I go to a lot of schools that are single-sex. In the last four years I have been to about a dozen. I think what thrills me when I am there is that the girls aren't quiet. They are very active participants in their world. I feel excited because I hear them chatting, talking and fighting with one another and arguing different discourses in different classrooms

²² *Id.* at 287 (discussing that girls need single-sex schools more than boys because girls need more of a "safe haven" from society's gender stereotypes and that since boys and girls learn at different rates, single-sex schools make sense).

²³ See Sanchez, *supra* note 18, at A1 (citing a report by the American Association of University Women showing that teachers often pay more attention to boys and discourage girls from entering certain scientific fields).

²⁴ See generally *New Lessons and Equal Rights Many Parents Steer Daughters to Single-Sex Schools*, CHI. TRIB., Mar. 31, 1996, at 8N (discussing that girls stand to "lose" in a coeducational environment while boys stand to "gain" in such an environment and that professional women may prefer to send their girls to single-sex schools and boys to coeducational institutions); Lynnell Hancock & Claudia Kalb, *A Room of Their Own*, NEWSWEEK, June 24, 1996, at 76 (discussing the spread of single-sex classrooms illustrating that boys feel more comfortable studying Shakespeare without girls); *but see* Frank S. Zepezauer, *Single-Sex School Idea Stirs Feminist Ire*, WASH. TIMES, Oct. 20, 1997, at 28 (discussing that boys' academic achievement has been declining and this may be due to gender bias).

²⁵ *But see generally* Armin Brott, *Why Not Have "Take Our Children to Work Day"?*, HOUSTON CHRONICLE, Apr. 23, 1996, at A23 (discussing the public and media's willingness to believe that girls are being discriminated against but according to studies boys are more likely to drop out of school or be held back a grade).

and competing at a rate of what feels like their own terms. On the 9th, 10th, and 11th floors of 105 East 106th Street, there are 55 uniformed Hispanic and African-American girls²⁶ interacting in three learning groups. They follow a program in the humanities, science, mathematics, arts, and physical education.²⁷ This program is not broken up into 40-minute spurts.²⁸ Last night Wendy Kaminer asked me, "Well, you know, the Young Women's Leadership School is so beautiful, Janice. And what about a coed setting that looks just as wonderful and just as beautiful? Wouldn't that be great for all the girls too?" And I said, "Yes, it would." And then driving home, I said, I was not really honest. And what I wanted to say is, yes, it would be great for all the students to have the kind of physical advantages that the Young Women's Leadership School has now, and should exist in all District 4 schools. I admit that categorically. But I tell you now that from my experience, all the girls learning together, not fearing the repercussions of sexual harassment in the adolescent peer culture, makes an enormous, enormous difference. There's a feeling of safety.²⁹ There's no graffiti.³⁰ It's clean.³¹ They bolt into the science classroom and they get ready to demonstrate their models, chatting and screaming: "Do you have this? Do you have that? Who had this? Who has that?" They get into their groups. There's an energy level there among

²⁶ See generally Steinberg, *supra* note 20, at 21 (discussing the Young Women's Leadership School in East Harlem and its students who come from the surrounding neighborhood).

²⁷ See Sanchez, *supra* note 18, at A1 (noting that the curriculum at the YWLS "stresses math and science" and some courses "promote women's themes").

²⁸ See *id.* at A1 (stating that "[c]lassrooms are relaxed and quiet. There are no bells. A teacher's presentation unfolds like a conversation, not a chalkboard lecture.").

²⁹ *Id.* (noting that there have been no incidents of violence and the girls and their parents feel it is a "safe and healthy" environment).

³⁰ See generally Michael Meyers, *Schools Dodge the Law*, USA TODAY, Oct. 15, 1996, at 14A (noting how at the YWLS the girls are in a small, clean, and "freshly painted" school environment).

³¹ See Liz Willen, *Girls Learn Together: In Harlem School, Young Women Find Everything but the Boys-and Like It*, NEWSDAY, Sept. 9, 1996, at A28 (quoting a student's opinion of the YWLS, "[i]t's clean and new and there are no boys . . . [i]t's very different from every other school where I've been.").

the girls who are African-American and Hispanic that you don't often see among minority girls in the coeducational classrooms.³² What is the worst that can happen here? This year, fifty-five underserved, underprivileged girls in New York City will have the opportunity to hear their own voices in some intellectual public space in a way not usually afforded to them in coeducational public schools. And I need to tell you, a lot of the history of K through 12 schooling, certainly K to 6 in public schooling, is that classrooms contain boys. Coeducational schools are the norm in public schooling.³³ They contain the boys. Many girls just sit there while valuable instruction time is lost. Last night a young man, who attends New York Law School came over to me and said, "I teach 5th grade in such-and-such a district in Brooklyn." I said, "You do?" He said, "Yes, I want to tell about what I noticed between my girls and my boys." I said: "Don't tell me, let me tell you." I then rattled off every attribute. The boys are active; their hands are flying; teachers are calling on them constantly; they are controlling them; they are containing their behavior. Boys dominate the discourse.³⁴ Girls sit back; they are quiet; they are nice.³⁵ Ask a group of public school third-grade teachers who you'd rather teach, the boys or the girls. And they say, well, the girls. And you say,

³² See Derrick Bell, *Et Tu, A.C.L.U.?*, N.Y. TIMES, July 18, 1996, at A23 (noting that the YWLS intends to "emphasize math and science, two subjects in which [African-American and Hispanic] girls have lagged behind boys.>").

³³ See *U.S. v. Virginia*, 116 S. Ct. 2264, 2293 (1996) (Scalia, J., quoting *Mississippi University for Women v. Hogan*, 458 U.S. 718, 736 (Powell, J. dissenting) (1982) (stating that "[f]rom grade school through high school, college, and graduate and professional training, much of our history has been educated in sexually segregated classrooms.>"). See also MARY MOORE, U.S. DEPT. OF EDUC., *SINGLE-SEX SCHOOLING: PERSPECTIVES FROM PRACTICE AND RESEARCH* 6 (1993) (stating that "[c]oeducation has long been established in the United States as both policy and practice.") "By the end of the 19th century, education had almost completely become coeducational." *Id.*

³⁴ See David & Jacqueline Sadker, *Separate-But Still Short-Changed*, WASH. POST, Nov. 1, 1995, at A19 (noting that "Girls receive fewer teacher questions, less help and less praise, less of all the intense instruction that makes for academic confidence and success. Boys act as classroom magnets, attracting class attention by calling out and acting up, demanding teacher time and talent.").

³⁵ *Cf.* at *id.* (noting that in the coeducational classroom "[w]ell-behaved girls become spectators as boys soar past them in the standardized tests they once excelled at.").

why? And they say, because they're quiet. They're nice. They don't make waves. They never call out. While this may sound simplistic and while clearly much of the methodology in these studies is weak, we can really look at the literature and say, okay, this literature is anecdotal, methodologically some of it is weak, but the volume of work on the merits of single-sex environment for women is nevertheless particularly persuasive. Dolores Garcia, my colleague, will address some of the data and one of the control studies. New York City has 1,069 schools integrated by gender.³⁶ We have a lot to learn from the Young Women's Leadership School. Surely we can afford to set one aside for girls to find out what works.

³⁶ See generally, *One Choice Won't Suffice*, STUART NEWS, Sept. 10, 1996, at A6 (noting that out of 1,100 New York City public schools, the Young Women's Leadership School is the only single-sex school).

