

MY REFLECTIONS ON THE BLACKWELL-TAPIA PRIZE

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ABSTRACT. The first two sections of this paper entitled The Conference and The History are taken directly from the webpage of the NSF sponsored Mathematical Sciences Institutes [1]. In the third section I share personal views.

1. **The Conference.** “The Mathematical Sciences Research Institute (MSRI) in Berkeley and Cornell University have established the Blackwell-Tapia Prize in honor of David Blackwell and Richard Tapia, distinguished mathematical scientists who have been inspirations to more than a generation of African American and Hispanic American students and professionals in the mathematical sciences. The award will be presented in even numbered years. The prize will be presented every other year to a mathematical scientist who has contributed significantly to his or her field of expertise, and who has served as a role model for mathematical scientists and students from under-represented minority groups or contributed in other significant ways to the addressing of the problem of the under-representation of minorities in mathematics.”

2. **The History.** Mathematical and Theoretical Biology Institute Director Carlos Castillo-Chavez, a member of MSRI’s Human Resources Advisory Committee (HRAC) from 1997-2000 and a faculty member at Cornell University at the time, broached the idea during an HRAC meeting of a conference honoring David Blackwell and Richard Tapia. He then implemented that vision by securing funding from Cornell for the first Blackwell-Tapia Conference, held at Cornell in 2000 and attended by both Blackwell and Tapia. MSRI Director David Eisenbud then suggested the establishment of the David Blackwell and Richard Tapia Award as a joint enterprise between Cornell and MSRI, to extend the honoring of these two eminent mathematical scientists to those who have followed in their footsteps. That award was first presented in 2002 at the second Blackwell-Tapia Conference, held at MSRI. Starting in 2004, the Blackwell-Tapia Conference has been hosted by other North American mathematical sciences institutes every two years, including the Institute for Pure and Applied Mathematics in 2004, the Institute for Mathematics and its Applications in 2006, the Statistical and Applied Mathematical Sciences Institute in 2008, and the Mathematical Biosciences Institute in 2010, and the Institute for Computational and Experimental Research in Mathematics (ICERM) in 2012. The

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National Blackwell-Tapia Committee selects the prize recipient. Primary funding for the conference comes from the host institute, while funding for the prize itself continues to be provided by a generous contribution from Cornell University.

Previous Blackwell-Tapia Awardees

- 2002 Arlie Petters (Duke University)
- 2004 Rodrigo Banuelos (Purdue University)
- 2006 William Massey (Princeton University)
- 2008 Juan Meza (Lawrence Berkeley National Laboratory)
- 2010 Trachette Jackson (University of Michigan)
- 2012 Ricardo Cortez (Tulane University)

3. Personal Comments. The establishment of this prize was a bold and important move on the part of Carlos Castillo-Chavez. Those of us who live in the so-called underrepresented minority scientific community realize how important it is to promote such awards and recognition; not because what we do we do for recognition, but because such recognition brings credibility and visibility to our cause. In turn it serves to influence young science students and professionals in their formative years. They accept that equitable representation should be a natural part of their academic world. However, there is a delicate balance in promoting such activity. If not done correctly the majority mathematics community, which today still seems to be the ruling class, views such minority focused activity as not relevant or the awards as somewhat substandard. Years ago at a departmental meeting of faculty and graduate students in my Rice Department of Computational and Applied Mathematics our chair announced to the group that Professor Richard Tapia continues to win all the minority awards in the country, but the awards that he values were won by Professors Smith and Jones. All my life I have heard such statements, so I was not shocked, but I was surprised that the statement was made in the open and not whispered as it is usually the case. Carlos is well aware of this phenomena and pushed hard to establish an award that would be of the highest merit and as immune as possible to such interpretation; and in credit to his genius he pretty much did this. Indeed, when I first mentioned to then Rice President Malcolm Gillis, that the Blackwell-Tapia Prize had been established by The Mathematical Sciences Research Institute in Berkeley and Cornell University at a conference at Cornell in November of 2000 and the banquet conference was attended by notable mathematicians and included then President of Cornell Hunter Rawlings III; he replied “Richard, you are now walking in tall cotton.” The net effect at Rice was that my statements, my programs targeting underrepresentation, my suggestions, and my requests were taken a bit more seriously by the administration. Has such recognition improved the quality of my outreach life? Absolutely. It strengthened and widened my platform for speaking out nationally on critical issues.

My wife, my son, my mother and I were all so excited to be travelling to Ithaca to the inaugural Blackwell-Tapia Conference. Since my wife is in a wheelchair we found it more convenient to fly to Syracuse. There Carlos in his flamboyant Mexican style had a limousine meet us to take us to Ithaca. When we arrived at the hotel we were viewed as entertainers or dignitaries as we descended from the limo.

The inclusion of David Blackwell in the naming of the prize was quite obvious, he was a superstar. The inclusion of Richard Tapia as the Hispanic counterpart was not as obvious. In fact I often tell Carlos that he chose me for this honor because it

would have been somewhat awkward to choose himself, but he would be deserving of such a choice.

Of course I knew David Blackwell well by reputation before that trip to Cornell in November of 2000. However, we became quite close at that meeting and in the years that followed.

David was quiet, reserved, intelligent, self-confident, and a man of few words. It was easy to like him and respect him. At the conference banquet Felix Browder spoke eloquently and forcefully on David's behalf and Margaret Wright spoke every bit as eloquently and forcefully on my behalf. David turned to me and whispered "Richard if it is appropriate to respond at the end of this ceremony, will you respond on behalf of both us, I dont enjoy such responses." I said that I would and I did. The original Cornell Blackwell-Tapia Conference was pure magic. Carlos, in his usual style, had taken care of every detail and then some. A young student named Johnny Guzman had been assigned to my family to drive us around. Today Johnny is a tenured professor of Mathematics at Brown University. There are many beautiful similar stories, of young student attendees, from the inaugural meeting and the subsequent six conferences. Recently I heard several Rice graduate students tell each other that one day they will win the Blackwell-Tapia prize. And I hope that they do. I believe that they now know what is needed for this award. Some time last year a local high school principal called me up and told me about one of her Mexican American students named Dante Vela.

Dante was a math prodigy and while in high school was taking algebra and analysis courses at the University of Houston. She wanted him to meet me because he was of the opinion that all academic mathematicians were Asian. We talked, and then I had the great idea of taking him to the 2012 Blackwell-Tapia Conference that was being sponsored by the ICERM Research center on the Brown University Campus. I called Director Jill Pipher, she was very supportive of my idea, we worked out the details and Dante went to Blackwell-Tapia. He is now more excited than ever about being an academic mathematician and join the world of Blackwell-Tapia.

Years later after the Cornell meeting I gave a Regents lecture at the University of California, Berkeley on underrepresentation issues in higher education. I was quite direct and critical. At my talk the front row of the audience read like the Who's Who of Berkeley including the notable David Blackwell. After the talk David approached me and said "I agree with the things that you said, and I wish that I could have said them in my time; but the time was not right, the time now is ripe, so I encourage you to continue being outspoken." I turned to David and said "David, do not even begin to sell yourself short for you gave us, the mathematical minority community, the greatest gift of all, the proof that excellence comes in all flavors." This is what the Blackwell-Tapia Conference is all about. Thank you.

At Blackwell's Memorial Conference in May of 2011 at Howard University his friend and long time Berkeley statistics colleague Peter Bickel, in remembering David Blackwell, said that David seemed not to think much about race and inequities associated with race. I could see a look of confusion appear on the faces of David's son and daughter, who were in the audience. Then I spoke and shared my experiences and conversations with David with the audience, including the Berkeley discussion. His children later thanked me for giving a proper portrayal of their father.

Carlos showed yet one more stroke of genius in negotiating with the NSF sponsored Mathematical Sciences Centers to include the Blackwell-Tapia Conference as

a part of their outreach activity moving from center to center every two years. This institutionalizes them and guarantees their existence for some time in the future. I am very pleased with the way that they have been handled and the contributions that these conferences have made to improving minority representation in the mathematical sciences. I say thank you Carlos. I am confident that David Blackwell would say the same.

REFERENCES

- [1] NSF Mathematical Sciences Institutes, 2013. Available from: <http://www.mathinstitutes.org>.

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