Racism as Gazing Bodies: From 'body-color' epistemology to epistemic violence
A response to: Not-so-strange bedfellows: Racial projects and the mathematics education enterprise

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Danny Martin commences his lecture on *'racial projects and the mathematics education enterprise'* by pointing out how 'racism' still affects any attempt to work out a social equity agenda for mathematics education in both educational institutions and pedagogical practices. He observes how globalization tends to transform the institution of 'university' from a social project to a market force that re-distributes financial investment of public funds. As such, the primary focus moves from generating innovative knowledge towards providing highly skilled and well trained work force, whilst, at the same time, its democratizing role aims at promoting opportunities for social, political and economic mobility. Danny Martin proceeds to relate this 'factory image' of the university to mathematics education programs. He points out, based on Nielsen (2003), how current mathematics education programs adhere to a range of ideological agendas that vary from critical to neoliberal. Such agendas seem to get involved into a continuously diverse endeavor of prescribing, theorizing or even dominating and colonializing what should be the interconnections amongst mathematics, mathematics education curricula, and societal needs. He asks: 'What sort of project is mathematics education?', and 'Whose interests are being served by this project?' Trying to account for these questions, Danny Martin returns to examining issues of social justice and equity where 'race' and 'racism' become the central axis for his investigation. Reviewing a number of research projects focusing on social justice and mathematics education, he concludes that although most scholars provide compelling critique to the fact that mathematics education and mathematical knowledge have increasingly been put in service to neoliberal and neoconservative agendas, they do not provide compelling analysis of race and racism. In short, although race is still an essential marker for excluding and marginalizing individuals within mathematics education practices, it has not been taken, yet, seriously into consideration.

I believe that Danny Martin has set up an important mission for himself not only as an academic within the field of mathematics education, but also as an active member of his local community in Chicago, US. I take seriously the internal motives gearing Danny Martin's work for they can lead to a more sensitive engagement with issues of social justice. I will, thus, turn towards responding to his lecture drawing on the field of technoscience and considering a (post)colonial and feminist perspective (see Haraway, 1989, Harding, 1998, Spivak, 1999). From this optic, issues of race, gender and science are not seen separate but interconnected. Although over the years (post)colonial and feminist scholars have tried to explore and unravel potential links that could initiate a dialogue -still their claims are open for further critique (see Spivak, 1999). Next to differences, a basic agreement is that 'race' (and racism) is socially constructed in (post)colonial discourses. In this realm, it is interesting to note how 'race', historically, has been evolved into a 'tool' at the hands of both 'soft' and 'hard' scientists –sociologists and anthropologists, but also biologists, zoologists and physicists (for more details concerning the move towards postcolonial feminist science studies see Chronaki, 2008).

A first departure in such a travel could be to account about racism as the practice of 'gazing bodies' –a practice highly mediated by discourses related to 'color' as is indicated by the metaphor of 'white institutions', offered by Danny Martin. Color becomes an essential material indicator that captures the gaze and penetrates consciousness via perception. It is easy to assume that what we 'see' is what it 'is' –as a representational view of mind might imply (Hall, 1997). Therefore a 'black' person, whatever his/her personal history and agency might be, runs the danger for being locked within stereotypical (and hegemonic) discourses of 'blackness'. The 'black' then becomes exotic, oriental and characterized as 'other'. Said (1978) explains that the 'orient' occupied a marginal discursive position since for centuries it was constructed by colonials as the inferior feminine or racial other. The 'orient' is always in need to be studied and displayed, to be disciplined and civilized. The 'representational view of mind' coupled with 'orientalism' can easily confirm a 'body-color' epistemology –a search of knowing that is mainly driven by 'gazing bodies' through/as stereotypic representations and by reproducing hegemonic discourses of subject agency.

Gazing bodies and specifically colored bodies has a long history in anthropological research but also in biology as, science historian, Londa Schiebinger argues in her book entitled '*The mind has no sex: women in the origins of modern science'*. Londa Schiebinger (2000) discusses the shameful case of 'Hottenton Venus' a woman from Southern Africa, named Saartjie (or Sarah) Bartmann, who was brought to Europe and displayed naked as a female body in either freak-shows or museums. She was made an object of sexual and scientific investigation and her body provided part of evidence for constituting modern biology. Londa Schiebinger (2000) explains:

> '*In the spring of 1815 she was summoned to the Jardin du Roi by a commission of zoologists and physiologists, where she was examined for three days. Henri de Blainville, professor at the Museum d' Histoire Naturelle in the Jardin du Roi, set out his purposes in observing her: (1) to provide a detailed comparison of the woman with the lowliest race of humans (the Negro) and the highest type of apes (the orangutan); (2) to provide the most complete possible description of the anomalies of her genetalia. This investigation required that Sarah Bartmann strip naked in the austere rooms of the museum in front of at least three formally dressed men*' (p. 29).

Sarah Bartmann died nine months later from 'inflammation' at the age of twenty-six and her dead body was brought to the museum for further examination and display. Parts of her body –like the many apes whose skeletons and skin were sold or donated to natural history museums- were preserved in formalin and made available for purchase as a souvenir. In this case gender traits, by means of a 'black' woman, were persistently invoked to explain purported racial superiority of mainly the white, middle-class man. It was only until 1994, after the African National Congress victory, that Nelson Mantela asked formally the French Government to return her remains. Today, Sarah Bartmann has become a symbol of colonial history -known as the daughter of South Africa (see http://en.wikipedia.org/wiki/Saartjie_Baartman).

Sarah Bartman's story is just an exemplary of how race and gender have become the 'material' for developing science itself at the foreground of colonialism. Race and gender are being discussed by Nancy Leys Stepan (1986) as a powerful analogy for

science that as she argues occupied a strategic place in scientific theorizing about human variation in the nineteenth and twentieth centuries. The traces of this argument can be found in examples from anthropometric, medical and embryological studies where the focus has been the measuring of human and animal skeletons (see Gould, 1981). Such studies provide evidence of black men and women's low brain weights and deficient brain structures as compared to men from varied cultures or even to animals. Woman, thus, was observed to share with Negroes the primitive traits of a narrow, childlike and delicate skull found in lower cases, so different from the more robust and rounded heads characteristic of males of superior races. Evolutionary biology making use of such evidence provides the analogy of woman as being the 'conservative element' to the man's 'progressive' (Ellis, 1926). Donna Haraway (1989) provides additional evidence for the tacit implications of 'scientific orientalism' through her studies in animal sociology in the context of primatology discipline. Whilst primatology might appear to be about animal communities it has become responsible for legitimizing a colonial perspective on projects where 'white' dominance becomes recontextualised. Haraway observes how scientific claims for connections between *social functionalism* and *physiological functionalism* have emerged 'naturally' and the related scientific outcomes become easily re-applied in areas such as medical, educational and industrial management or even military and administration (for a further discussion see Chronaki, 2008).

Racism today is based on a strong image of a 'collective identity' of some sort (i.e. ethnicity, religion, gender, ideology, knowledge hierarchies, scientific competences etc) that serves to inscribe a strong distinction amongst 'we' and 'others' –a distinction that reflects precisely a 'chromatic' or 'body-color' epistemology. This epistemology is linked to a fixed and static notion of representing knowledge hierarchies and subject agency. Gazing, visualizing and categorizing provide a rigid adherence to stereotypic images of cultural identity and scientific knowledge. As such, certain subject positioning(s) become excluded, marginalized and silenced producing *epistemic violence*.

Whilst epistemology theorises the origin, nature, methods and limits of knowledge, 'episteme' has been defined by Foucault (1970) as a 'unitary body of theory' which tends to privilege some knowledges whilst subjugating certain others and ranking them low in its hierarchical paradigm. According to Spivak (1999), epistemic violence results when in colonial and postcolonial discourse, the subaltern[1] is silenced by both colonial or indigenous patriarchal structures. Gayatri Spivak (cited in Harasym, 1990) argues how epistemic violence is easily ignored when the 'us' and 'them' division creates a clear distance between the 'object of race' and the 'subject of racism'. She explains how current discourses of anti-racism approaching race simply in terms of skin color can replicate similar structures to the ones used to produce epistemic violence in colonialism. A rigid adherence to body-color epistemology can severely limit an anti-racism theorizing because, as Spivak explains, it:

[1] Gramsci has originally coined the term 'subaltern' in order to address the economically dispossessed, and today Ranajit Guha reappropriates Gramsci's term in an effort to locate and re-establish a voice or collective locus of agency in postcolonial India. In her essay "Can the Subaltern Speak?", Spivak acknowledges the importance of understanding the 'subaltern' standpoint but also criticizes the efforts of certain subaltern studies emphasis towards creating a 'collective voice' through westernised mediating practices (see Chronaki, under publication).

> *'…obliges us to ignore the fact that in countries which are recognized as Third World countries, there is a great deal of oppression, class oppression, sex oppression, going in terms of the collusion between comprador capitalist and that very white world. The international division of labor does not operate in terms of good whites, bad whites and blacks. A simple chromatism obliges you to be blind to this particular issue because once again it is present in excess. I was trying to show how our lives, even as we produce this chromatism discourse of anti-racism, are being constructed by that international division of labor, and its latest manifestations were in fact the responsibility of class-differentiated non-white people in the Third World, using the indigenous structures of patriarchy and the established structures of capitalism. To simply foreclose or ignore the international division of labor because that's complicit with our own production, in the interests of the black-white division as representing the problem, is a foreclosure of neo-colonialism operated by chromatist race-analysis* (cited in Harasym, 1990, p. 126).

Coming back to the lecture, although Danny Martin is not entirely satisfied with a 'factory image' of the university and of university mathematics education, and with respect to the highly contested meanings invested in words such as highly skilled, well educated, democratizing, race, racism and racialism, his work reveals a determination towards unraveling the structural constraints and affordances that could transform university mathematics education into a social justice project. A social justice project that would include (instead of exclude) marginalized minorities within US context such as black people (African, Latino or Indian American), and a social project that would create a dialogue amongst 'we' and 'others' aiming to bridge inequalities. But, at this stage, one needs to pose and think: Whose interests should that 'social project' serve? And, who counts for its success? And in what measure or whose's measure? In other words: Do all black people should want to be included in the same social project? Do they all perform the same politics? Do all black people favor a similar agenda for their mathematics education? Taking into account Spivak's critique of (post)colonial discourses of anti-racism one needs to re-consider not only the colonial (and postcolonial or global) order, but also the indigenous structures of patriarchy and capitalism which affect epistemological assumptions of subject agency and knowledge politics as they are performed at the level of curricula planning and implementation.

During the last three decades mathematics education is heavily concerned with how issues of multiculturalism and multilingualism affect access to mathematical sciences. However, we tend to forget how notions of cultural and linguistic diversity are being inscribed in bodies -bodies with flesh and color but also bodies with history and agency. Bodies have been largely naturalized and silenced. Bodies could be not only numbers of black people, but full-fleshed subjectivities. Instead of trying to overcome 'complexity' at the expense of a more generic language that treats 'body' as insignificant or easily replaceable by 'language', 'symbolism', 'color' etc., we could place more emphasis on 'reading' the body as framing a multiplicity of materialities, meanings and ethics. Theorizing the 'body' has been an important endeavour in the fields of philosophy, cultural studies and feminist theory, and the 'body' metaphor can be utilized to enable us imagine alternative ways on how mathematics, as school technoscience, becomes recontextualised in education (see Chronaki, 2008).

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