

Reaction to: Not-so-strange bedfellows: Racial projects and the mathematics education enterprise

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Danny Martin's paper raises a number of points about the way that mathematics education constructs identity, including the sense of belonging to specific groups. He states that mathematics education is a type of racial project because it reinforces racial inequalities in the way it is researched, taught and learnt. As a whitefella or Pākeha who works mostly with Indigenous communities, it made me think about how ideas around 'racial projects' connect with the theoretical constructs that my colleagues and I work with.

In order to identify points of connection between our respective research orientations, it seems valuable to discuss what is meant by race and racism which are key terms in Danny's paper. Differences in varieties of English and conceptions of the key issues complicate any discussion and thus they need to be clarified.

There are many definition of race and racism. My computer dictionary defined 'race' as:

- each of the major divisions of humankind, having distinct physical characteristics: *people of all races, colors, and creeds.*
- a group of people sharing the same culture, history, language, etc.; an ethnic group: *we Scots were a bloodthirsty race then.*
- the fact or condition of belonging to such a division or group; the qualities or characteristics associated with this: *people of mixed race.*
- a group or set of people or things with a common feature or features: *some male firefighters still regarded women as a race apart.*

Racism is defined as:

- the belief that all members of each race possess characteristics or abilities specific to that race, esp. so as to distinguish it as inferior or superior to another race or races.
- prejudice, discrimination, or antagonism directed against someone of a different race based on such a belief: *a program to combat racism.*

As an Australian who has worked in many places with different groups of people, I tend to talk about issues of ethnicity, inclusion and exclusion, social justice and equity. Generally, I would not talk about race nor about racism. Why is this the case? In Australian English the most common definitions, such as the ones above, about race and racism would be those that are based on physical characteristics that are genetically determined. In the same way that twenty years ago we stopped talking about sex differences and began using the term gender differences, I choose to use other terms than race, such as ethnicity. For me, ethnicity like gender emphasises that these differences are socially constructed rather than genetically determined.

So what does it mean to talk about ethnicity as a social construction? With my Māori colleagues Colleen McMurchy-Pilkington and Tony Trinick, we conducted a literature review on mathematics education research done in regard to Indigenous students in Australasia across the period on 2004-2007. In order to conceptualise how Indigenous learners were constructed as knowers, doers and learners of mathematics by the stories told about them in research, we developed Figure 1. There are four main groups who tell stories about Indigenous learners: societies; communities including parents; teachers; and children.

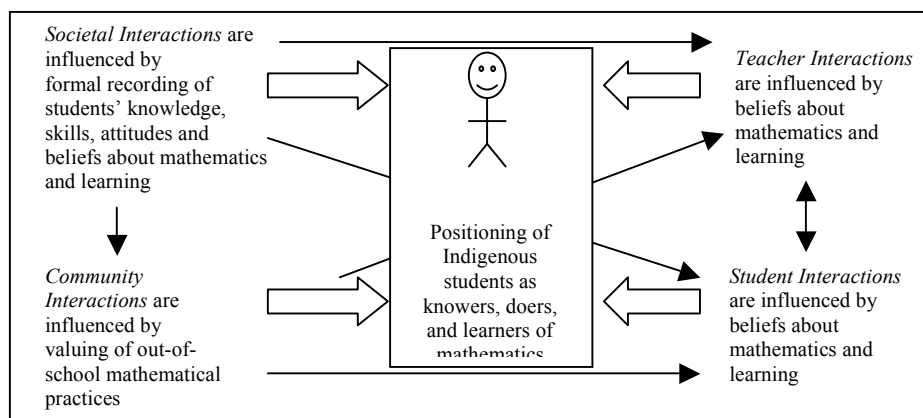


Figure 1: The influence of different kinds of interactions on the positioning of Indigenous students (from Meaney, McMurchy-Pilkington & Trinick, 2008)

Although stories about the poor performance of Indigenous learners were frequent, especially from societal interactions with Indigenous students and their communities, they were not the only stories. Irrespective of the stories told in research, what seemed important was the way that the stories that came from different interactions were woven together to influence each other and to contribute to how Indigenous students were perceived and perceived themselves as knowers, doers and learners of mathematics. No individual story was solely responsible for the labelling of some students as disadvantaged because of their Indigenous ethnicity. It was the pattern made from the weaving together of the research stories that continually reinforced the perception that Indigenous students were disadvantaged. However, there was little research into the affect that this labelling had on the type of research that was being undertaken. This would correspond with Danny Martin's complaints about the lack of discussion about the how children get blackened by research stories. In our literature review, more recent research focusing on how students' indigenous background contributes to the successful learning of mathematics alters the pattern of the cloth being woven and thus how Indigenous students are perceived and perceive themselves.

Although it is clear in Danny's argument that he sees race as something that is socially constructed, he has chosen for good reasons, connected to the US situation to continue to use the terms 'race' and 'racism'. Certainly, there is no clear equivalent to racism when one uses the term ethnicity. This makes it very difficult to discuss what racism might look like in mathematics education. However, it is unlikely that just looking for

blatant acts of racism, such as suggested in the definition of racism above, will contribute in a meaningful way to an understanding of why these students become labelled as disadvantaged.

Let me give an example. In recent research that I have undertaken with Uenuku Fairhall and Tony Trinick in New Zealand, we have been looking at the bilingual exams that are provided to students who complete high school in a Māori immersion school. Māori set up schools that taught in the Māori language because the language was dying and because Māori children's academic achievement was so poor that they had nothing to lose by moving them out of the system. As time went on, the schools were accepted and then funded by the system with a lot of trumpet blowing about how the students at these schools were out performing their Māori peers at the mainstream schools. Figure 2 comes from a government report into the performance of Māori students in Māori immersion and English medium schools. It shows that in the three final years of high school that students in Māori-medium schools gain more qualifications at a higher level in 2004, 2005 and 2006.

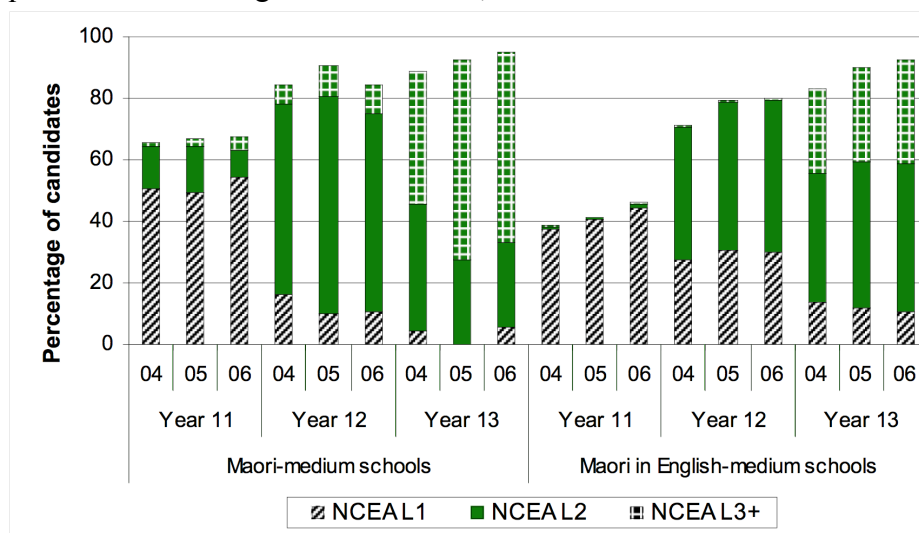


Figure 2: Highest NCEA qualifications gained by Years 11 - 13 candidates at Māori-medium schools and by Māori at English-medium schools, 2004 - 2006 (from Wang & Harkess, 2007, p. 3)

Thus, the system went from blocking the establishment of the schools to linking themselves to their success. Part of the system's support for this process has been the provision of bilingual exams at the end of high school so that students who learnt in *te reo Māori*, the Māori language, did not have to do exams in English which had been the case up to ten years ago. Many students are second language learners of Māori, so the original questions in English are also provided.

However, no extra time is given to the students if they need to move between the languages. As part of our ongoing research, we interviewed students who sat these exams to find out about their experiences and found that they did use both languages, moving between them continually. Uenuku then looked at the *te reo Māori* in one set of exams, only to find that the translation from English to Māori had been done so appallingly that students were unlikely to be able to just use the Māori to understand the question even if they were first language speakers of Māori. Therefore, the lack of

exams in *te reo Māori* could be seen as a blatant example of racism whilst the provision of bilingual exams could be seen as an example of subtle racism.

So although on the surface it appears that the New Zealand Qualifications Authority (NZQA) has moved beyond its open resistance to Māori taking control of the schooling for their children by providing bilingual exams, subtle obstacles are put in the way. The outcome of this ensures that the students recognise the pre-eminence of English and the fact that Māori cannot do mathematics. These obstacles are likely to have contributed to the very small numbers of students who achieve at more than the standard level. Work by Stewart (2007) on the first three years of the new examination process in New Zealand show just how appallingly the results were in mathematics achievements. Table 1 shows these results.

Table 1: Number of mathematics exam papers completed by Māori immersion students between 2002 and 2004 (from Stewart, 2007).

	Number of papers	Not achieved	Achieved	Merit	Excellence
All Pangarau [mathematics]	941	693 (73.5)	210 (22.3)	38 (4.0)	0 (0)

So where does racism appear in this story? And who exerts this racism? Although *te reo Māori* is recognised as an official language of New Zealand because most non-Māori do not speak it, the difficulties of doing translations are not well understood. Does this make those in charge of organising the translations racist? Or is it the Māori organisations who do the translations for NZQA who are complicit in this racism? The issue is full of complexity. However, if we conceive that the outcome of continuing poor academic results in mathematics for Māori students is “an effort to reorganize or redistribute resources along particular racial lines” then this situation is one of a ‘racial project’ as Danny Martin has described it.

One of the points that Danny Martin makes is that race can be back-grounded in discussions about globalization. I would also contend that ethnicity as a social construction can also be backgrounded whenever we try to simplify complex issues. Theoretical considerations need to help unpack the processes by which some stories become more valued than others are other stories are never told. I would contend that there are some white theorists who can contribute to this unpacking and given white people’s contribution to the establishment of privilege it is essential that they take on this theorisation. Elizabeth De Freitas and Alexander McAuley (2007) show how the discomfort that just reflecting on the advantages that this privilege brings needs to be embraced if teachers are to see the diversity of their students in positive ways.

Foucault’s ideas about the connection between power and knowledge can provide some insight into the processes that contribute to the complexity of situations such as that of the bilingual exams. At the present time, it is difficult to have a discussion about changes that could contribute to improvements because too many educators, European and Māori, are invested in the stories of Māori immersion schools being

successful. For the educational system as a whole, the stories of success of these schools mean that they are not required to do anything more and for the Māori community is a way of ensuring that children continue to be sent to these schools and that the language becomes strong. Mathematics achievement for these students in secondary in both considerations and may be this is how it should be?

The bilingual exam story illustrates the complexity of the situation. Racism comes in both blatant and subtle forms; these latter ones can often be difficult to identify and overcome. In one part of the paper, Danny describes the *interest convergence* that resulted in African Americans receiving better educational opportunities. Moral compunction is unlikely to ever be enough to overcome racism because its impact on the research that is undertaken and given credence is likely to be negligible. Research after all is supposed to be achieved scientifically. Without a change to the way that we conceptualise what research is and how it is done, there always will be too many other stories that are woven together that reinforce the acceptability of the differentiation of results by ethnicity. Therefore, there is a need to better understand how practices such as education are confined by the societal configurations that affect what research is funded and what information is fed back into the system. Unless the complexity in which we as researcher work is understood in relationship to the complexity of schooling systems and students' outside school lives then racism is likely to be perpetuated. Danny's paper ensures reflection on the educational research enterprise but more work is needed if we are to move from identification of problematic nature of the racial project of mathematics education to doing something about it.

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