Building a nation one project at a time: Reply to 'On human evolution, *Australopithecus sediba* and nation building'

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Although I am pleased to note the positive tone of your news and views article by Alan Morris[1] discussing the scientific merit of our recent papers,[2,3,4,5,6] I would like to address some misconceptions regarding the composition of the Malapa team. These misconceptions are best summarised by the statements that, 'palaeoanthropology still lags behind the transformation of South African society in general'[1], and that, 'only a few [authors] are South African and even fewer are from previously disadvantaged South African groups'[1]. While I agree that this is, in general, true of our and other sciences in this country, it is perhaps unfair to use my team and these authors as illustrative of this apparently widespread social issue. It is true that of the 21 authors only 4 are South African citizens (2 of whom are Black people), while 1 other hails from another African country, but 6 of the authors hold full-time positions and a further 3 are former students and/or faculty members at South African universities. An additional 5 of the 21 authors are officially affiliated with South African institutions of higher learning. Of the authors having no South African affiliation, 6 were brought onto the project because they possess highly specialised training, laboratories and equipment not presently available in South Africa (e.g. the European Synchrotron Radiation Facility in Grenoble, France). Importantly, in terms of leadership, two of the lead authors of the five recent papers are South African citizens[5,6] while one is Kenyan.[3] From a gender equity perspective, five of the authors are women, two of whom are lead authors on these papers.[4,6] An additional aspect is that of the 21 authors, 16 are under the age of 45. The international nature of the Malapa team is also important, for we must vigorously encourage the best and brightest scientists to collaborate with us, bringing South Africa to the forefront of the international scientific community.

I wholeheartedly agree that there are substantial inequities in South African science that must be addressed, although I disagree with his belief that palaeoanthropology, as evidenced at Malapa, lags behind that of other fields of scientific inquiry in relation to South African society. Educational inequities exist across the sciences; these inequities require focused efforts to redress and deserve significant attention from all segments of society. The 21 authors listed in the recent Malapa papers represent only a fraction of the more than 70 scientists currently involved in this project. I would go so far as to state that at present the majority of active South African palaeoanthropologists and quaternary palaeontologists are directly involved in some aspect of the Malapa research – for we have certainly attempted to be inclusive – and thus rather than being an example of the ills bestowed upon us by the past, the Malapa project is in fact a fine example of a young team attempting to 'link this research to building a team of South African scholars, including those who come from previously disadvantaged backgrounds'[1]. Even now, there are growing numbers of young South Africans, many from previously disadvantaged backgrounds, studying the Malapa fossils, both at Wits and other universities. We hope these remarkable fossils will attract more students. But we as a country must provide funding for these students, especially those from disadvantaged backgrounds. We must ensure that upon graduation they are not forced to leave South Africa to continue in their chosen field. We must create employment opportunities in South African universities and museums. Malapa presents us with a unique opportunity to inspire the dreams of future generations into the exploration of human origins. A successful, integrated, representative scientific community that produces both leadership in chosen fields and collaborates internationally with scientists of the highest calibre should, in my opinion, be the goal of South African research institutions.

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