

The Tao Nomination: Additional Considerations Effort and Sacrifice vs. Genetic Predisposition

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In relation to the nomination of Terry Tao for Australian of the year, a question arises. It was well and forcefully put by a friend of mine. Paraphrased, it goes as follows.

Isn't it just as odd to congratulate people for their genetic brilliance at maths, as to congratulate them for their genetic brilliance at sport? Isn't it better to see awards go to those who help the disadvantaged, or those who undertake greater effort and sacrifice, rather than those who are just naturally highly talented? Sure, it requires determination as well as talent to become a top mathematician, or a top cricketer, but this doesn't seem as important as, say, reducing the number of children living in poverty.

This is certainly a very laudable point of view, and I pretty much agree. I was very much aware of these shortcomings and contradictions in the argument for Tao's nomination, even as I was urging people to nominate him. I did not want to burden the recipients of my urgings with a long discussion of these issues, but I am certainly happy to have that discussion, because they are legitimate questions.

Let us be clear. It is absolutely clear, no doubt about it, this Fields Medal and this nomination for Australian of the year is a reward for winning in the genetic lottery, and being exceptionally well endowed in mathematical problem solving ability. There is presumably also a large amount of effort involved on Tao's part, but this isn't the point. Certainly the effort required in solving maths problems doesn't compare to the effort required in, say, teaching in a third world country or working in a coal mine (or thousands of other difficult things). Probably many less-talented mathematicians work harder than he does. The elements of 'desert' or 'just reward' are far outweighed by elements of 'genetic predisposition' and 'fortunate upbringing'.

When we talk about reward people for something, as a moral thing to do, it only makes sense if they have performed some effort or made some sacrifice. I think this argument extends far beyond awards like the Fields Medal or Australian of the year awards. On a more immediate and everyday level, one can

look at the reward that every working person earns every day. It follows immediately from this argument that income distribution and remuneration norms in our society, and any capitalist society (and many others), are highly unjust and, if you want, immoral. They reward according to genetic lottery, financial inheritance, subservience to power, and marginal revenue product — elements of effort, sacrifice and creativity are, again, far outweighed in my view. Income does not look at all proportionate to effort/sacrifice. Well, this is a whole other story; suffice to say I think a lot follows from this point of view, which has clear ethical force.

So yes, in a sense, there's nothing worth rewarding here. There's plenty to recognise in an exceptional intellect, and plenty of importance in the mathematics, but that's different from reward. And not only is it, in this sense, undeserved, it also strengthens repressive tendencies: feelings of worthlessness in the face of the genius; the feeling that I could never do that; the idea that mathematics and science more generally are elite occupations for only a specially privileged few, of which I have no chance of becoming part; it strengthens elitism and class differences; if one is inclined to be uncharitable, it encourages the view that Tao is a freak and increases revulsion of mathematicians, scientists and other outcasts; it increases the alienation of intellectuals and the academically inclined.

So, yes, there are plenty of shortcomings in the whole idea of rewarding someone like Terry Tao! Why, then, did I advocate nominating him for this award?

When I urged people to nominate Tao, one of the things I said was: "As Terry says, the mathematics itself is far more important than any one person. But it is great to see mathematicians and mathematics — indeed, science and scientists more generally — receiving some attention in Australia."

I was very careful to say not just Tao or just mathematicians, but also mathematics, and that it is the mathematics which is important. I want mathematics to be promoted more widely, to be viewed as less elite, more a part of mainstream society, to be humanised, to be taken up as an interest by more people. I think a society which values and better understands mathematics — and more generally, science, critical thinking and proper debate — will be a (slightly) more democratic, (very slightly) less ignorant, (extremely slightly) less prejudiced, less violent, (perhaps) more civilized, (hopefully) more creative, better society.

There are plenty of qualifications to this statement, of course: mathematics and statistics are often used to manipulate information, to deceive, to lie; in the present context I think there are supposedly-scientific disciplines (such as economics) which often serve as an intellectual cover for very specific ideologies and politics; there is a consequent anti-intellectualism which is sometimes justified. But on balance I calculate — a question of strategy, not an absolutely good or bad thing — that the benefits of having a mathematician as Australian of the year, rather than (presumably) a sportsperson or entertainer, outweigh the disadvantages. Terry Tao vs. Steve Waugh is clear. Terry Tao vs. heroic third world aid agency, is probably also clear (in favour of the agency). Given

that mathematics is so marginalised, and given that we have a chance to take it out of the margins, I think it's worth doing something, on balance, nonetheless.

Incidentally, and on a lighter note, I will not deny that I have a self-interest in this: higher profile for mathematics in Australia implies more funding for mathematics in Australia implies more academic positions in mathematics in Australia implies job for Dan in Australia in the future!

Anyway, it's an interesting question.