

Mathematicians against the myth of genius: beyond the envy interpretation

Author: Terence Rajivan Edward

Abstract. This paper examines Timothy Gowers' attempt to counter a mythology of genius in mathematics: that to be a mathematician one has to be a mathematical genius. Someone might take such attacks on the myth of genius as expressions of envy, but I propose that there is another reason for cautioning against placing a high value on genius, by turning to research in the humanities.

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Be brave: it's just a little cut

—*The gentlest of but*

In a chapter of his introductory book on mathematics, Timothy Gowers writes:

People like to think of mathematicians as geniuses, and of genius itself as an utterly mysterious quality which a few are born with, and which nobody else has the slightest chance of acquiring. (2002: 126)

He goes on to define genius, or genius in mathematics, as follows:

...somebody who can do easily, and at a young age, something that almost nobody else can do except after years of practice, if at all. The achievements of geniuses have a sort of magic quality about them – it is as if their brains work not just more efficiently than ours, but in a completely different way. (2002: 127)

Gowers argues that genius, as defined, is neither necessary nor sufficient for being a

mathematician. The vast majority of mathematicians, he tells us, find that their knowledge and expertise steadily improve with time and practice, even if there is some decline in raw brain power – a concept he is not sure even makes sense in mathematics (2002: 126). He points to an example which he thinks depended on “great courage, determination, and patience, a wide knowledge of some very difficult work done by others, the good fortune to be in the right mathematical area at the right time, and an exceptional strategic ability.” (2002: 128)

One might well react by judging that without genius a field becomes sterile. It is all predictable and unexciting work. Furthermore, one might take such attacks on the mythology of genius as expressing envy. My purpose here is to challenge that interpretation. Such an interpretation applies to attacks on the mythology of genius across fields, which gives us room to set aside mathematics and move towards more familiar territory.

If we turn to research elsewhere, what can sometimes happen is that a figure who is a cut above the rest is treated as a genius and a cult-like system develops around them. But there is a cost with that. Whenever there is a more advanced problem which the texts of that figure do not provide a solution to, the person in the genius role usually has to sort it out. Nobody else is going to. They have to do the more advanced problem solving.

To illustrate this point, compare all the responses to an objection by Jerry Fodor with problem-solving in the Derridean system. The objection is directed towards the view that all theories can affect perceptual experience. Fodor objects that knowledge that something is a perceptual illusion does not affect perception itself, because the illusion does not go away (1984: 34-35). There are lots of responses to

this argument, which try to block it, most or all by humdrum workers (e.g. Churchland 1988; Cam 1990; Henrich and McCauley 2006; Edward 2011). What happens, in contrast, when an objection is made to Jacques Derrida – let us take the objection that he depends on the dispensable assumption that either something falls under a concept or it does not, e.g. either something is a work of fiction or it is not (Searle 1994: 638)? Well, Derrida is going to have to sort it out (1988: 126).¹ Attacks on the myth of genius may well serve as a warning: be careful of letting oneself be cast in the role of genius by admirers, whether you are or are not, only to find that when problems come along, you have to do all the advanced problem-solving. I cannot say that this is a risk in mathematics, but it is a risk in various fields. And that gives us an alternative to the envy interpretation, in at least some cases.

References

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¹ What others might provide is satire of objectors and various other responses which may temporarily shut opponents up, but do not actually solve the problem. They do not say, “Here is a version of deconstruction which does not depend on this assumption,” when that seems doable. I once heard a response to the familiar reaction to John Rawls of “I cannot imagine people behind the veil of ignorance”: a response of loudly saying, “I can!” Is the method meant to be for the few? I think there is a better response available, though not as brief (see Freeman 2007: 160; Edward 2022: 2-4).

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