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About My Job: The Mathematician

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by *Conor Friedersdorf*

A reader writes:

I'm currently a Ph.D. candidate in pure mathematics, and in my free time I like to think about how mathematics and mathematicians are portrayed in popular culture. Usually, both are portrayed poorly. For example, if everything you knew about a mathematician you learned from films like [A Beautiful Mind](#) or [Pi](#), it would not be entirely unreasonable for you to assume that mathematicians are socially maladjusted and crazy. Of course, the reality is much less dramatic: mathematicians are plenty of regular folks who study mathematics. Of course, the media loves it when a mathematician does something strange, as when [Grigori Perelman](#) famously declined the Fields Medal in 2006 and the cash prize associated with his solution to the [Poincare Conjecture](#), but such behavior is not so common, even among mathematicians. On average we may be more eccentric than the general population, but it would be nice if we could claim some degree of normalcy in the way we are portrayed.

Of course, the fact that mathematicians are frequently portrayed as being somehow separate from the general population may have something to do with the way mathematics itself is represented. For many people, math seems like an impenetrable subject that only a chosen few are able to understand, and it may therefore seem natural to ascribe to those chosen few certain characteristics that one can then point to as explaining why one person is good at math and another isn't. Most people also don't have a very good idea of what exactly it is that a mathematician does (hint: it does not involve multiplying really big numbers together in one's head).

Unfortunately, much of this can be attributed to the way mathematics is currently taught: by and large, students are taught a collection of algorithms for solving problems, but are rarely given insights into how these algorithms developed, what problems they were originally used to solve, or how different techniques are related. Students learn to solve certain classes of problems by applying certain fixed steps (partially, I suppose, because such things are easier to test), but they are rarely given the opportunity to practice creative problem solving. As a teacher, I have seen the results of this flawed system: when students become stuck on a problem, they are often too eager to throw up their hands in frustration, rather than buckle down and try to think creatively (in the words of [Dan Meyer](#), students often lack patient problem solving skills). Many students don't even think of mathematics as a subject that requires creativity, which is truly unfortunate.

Anyway, these are issues I enjoy thinking about, and I explore them frequently on a website called [Math Goes Pop!](#). It is essentially a place where I can ruminate on the intersection between math and pop culture, and there my disdain for the way math and mathematicians are portrayed in popular culture is tackled in more detail.

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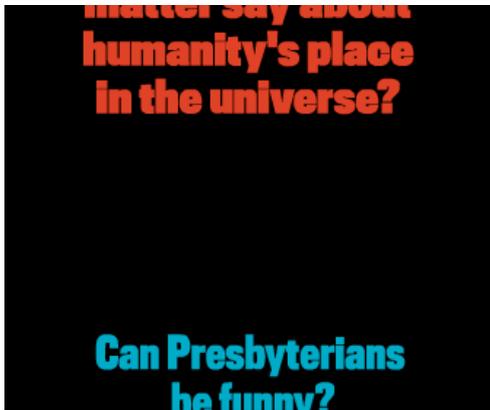
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