



Arrgh!

Yes; the second quote should have had "procreation" instead of "recreation". [-ecl]

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**THE WHEEL OF TIME** (comments by Mark R. Leeper):

Last week we published [a review by Gwendolyn Karpierz of THE WHEEL OF TIME](#). Prospective readers should be reminded of the old adage, "THE WHEEL OF TIME bears bitter fruit." [-mrl]

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**The Unanswered Question** (comments by Mark R. Leeper): One of the perks of Evelyn and I having our own zine with a knowledgeable readership is that when I have a math- or science- related question is that I can ask a question in front people that are very knowledgeable. There is a web site that some of you may have heard of called "Quora." This is a question and answer site. Users can leave questions and other users can find questions for which they knew the answers.

My experience with Quora was that it suffered badly from a problem that seems to be endemic on the Internet. Intelligent websites become less intelligent as they get more people accessing them. They start with questions like "what is the arc length of  $\sin(x)$  from 0 to two pi?" After a month or so the questions have deteriorated to "what are the three worst films ever made?" To make matters worse the person answering does not seem to know any films more than five years old. A major classic for him is ANT- MAN.

But as I say, I have more respect for the readership of the MT VOID than for the readership of Quora.

So I have this question. Longtime readers of the VOID may find the question familiar.

Consider you have a piece of white thread one yard long. And you have a piece of black thread that same length. Lay one on top of the other. Now grab the two ends and twist them in your fingers in opposite directions. Twist them hundreds of turns in opposite directions. Grab at the middle the piece of black and white hybrid thread you have just created. Separate the thread enough so you can pull the black thread and white thread apart from each other. One of two things can happen. If you are really lucky as you pull the two threads apart the ends will spin like an outboard boat motor. More likely the hybrid thread will just kink up.

Now what conclusion can one draw from this experiment? Well, the twisted hybrid thread is a double helix. And the conclusion would be that helices twisted around each other are very hard to separate from each other. They have a turn-count that will not just go away. Now your high school biology book probably showed how DNA reproduced itself by showing a double helix that looked like a twisted ladder. The illustration probably looked a lot like

<http://tinyurl.com/mtv-dna>

My guess is your textbook just glossed over the question of how the two sides of the ladder untwisted from each other without a whole lot of untwisting going on back-stage.

So what is the answer? It looks like DNA has discovered how to do a trick that looks like it is topologically impossible. It has been suggested to me that the sides of the ladder can separate, let the other side pass through, and then heal up again. That would explain it but it is asymmetrical an inelegant.

Anyone know?

By the way, if you can answer the sine wave question above you're a better mathematician than I am. [-mrl]

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**BREATHE** (film review by Mark R. Leeper):

**CAPSULE:** This is a true story. Stricken with polio and a prognosis of only three months to live, Robin Cavendish must first overcome his death wish. He then attacks his problem that he must live in hospital with an immovable respirator. With the help of friends he engineers a way to live at home and then to actually move around. His engineering solutions improved the lives of thousands of polio victims. Andy Serkis's directorial debut is a moving paean to the human spirit and the possibilities of engineering. Rating: high +2 (-4 to +4) or 8/10

BREATHE is the true story of Robin Cavendish (played by Andrew Garfield). At the age of 28 he was living a particularly active (perhaps posh) life and thoroughly enjoying himself and his newlywed wife Diane (Claire Foy). Diane was pregnant with his child. The good life came to a sudden crashing end when Robin started falling down and being in pain. He became paralyzed from the neck down, the victim of polio. His life was predicted to last only another three months. In deep

depression he let it be known that he had a strong preference for death over being imprisoned in a respirator in the hospital. He made clear his unhappiness to Diane, his wife, who never stopped loving him.

The machinery did his breathing for Robin, but he could do little more than stare at the ceiling. Strictly forbidden from taking any action he decided he wanted to go home and acquired a respirator he could use at home. This had never been done before. And the three-month estimate of his survival time was reduced to two weeks. Instead, his condition improved with the slight change of scenery. He could stare at another ceiling and he could commune with his friends, one of whom was an amateur engineer. Together they designed new equipment to improve the lot of Robin and in general people in respirators. That friend is played by Hugh Bonneville who played the head of the household in "Downton Abbey."

Robin's next idea for improving his condition was to have a respirator built into a wheel chair. With this he could actually travel. In the end, Robin's ingenuity would improve the life of thousands of polio victims.

For Andy Serkis's directorial debut he has chosen to make a film very different from the special effects-laden films he is best known for. With the exception of the mushiness of the film's use of Cole Porter's "True Love" the film creates a level of tenderness in the love of the two Cavendishes for each other. This is a side of Serkis we never expected.

Claire Foy is fine as Diane, but Garfield may have a little trouble getting American audience sympathy playing a somewhat toffee-nosed patrician. But that is not necessarily a fault. It is better the characters not be so cute as perhaps they might be in GIFTED. And if they still seem too loveable realize that the boy in the film grew up to produce this film.

I rate BREATHE a high +2 on the -4 to +4 scale or 8/10.

Film Credits: <http://www.imdb.com/title/tt5716464/combined>

What others are saying: [https://www.rottentomatoes.com/m/breathe\\_2017](https://www.rottentomatoes.com/m/breathe_2017)

[-mrl]

**GIFTED** (film review by Mark R. Leeper):

**CAPSULE:** This is something of a re-working of the aphorism, "It's nice to be important, but it is more important to be nice." Bachelor Frank Adler is raising Mary, a seven-year-old who is a great child prodigy. Mary's school finds out they have a genius in their first grade, and they want to teach the girl to fully develop her skills. Frank resists, wanting instead to give Mary (his niece) a normal school experience. Frank's mother enters the argument on the side of the school. The issue comes down to whether special students need to get special attention to make the most of their talents. Rating: high +1 (-4 to +4) or 6/10

If a child shows great potential to be highly intelligent, should her intelligence be specially nurtured into making her a leader or should she be treated like any other child and raised to be "normal?"

Director Marc Webb gives us a story of a seven-year-old girl who has the mathematics ability of at least a graduate student. Mary (winningly played by eleven-year-old Mckenna Grace) is one such gifted child. Her grandmother Evelyn (Lindsay Duncan) wants to give the child special schooling and training. Mary's uncle and guardian, Frank (Chris Evans who in other films plays Captain America), wants Mary treated as much as possible like any of her peers. Her grandmother thinks that not developing that child into a world-beating genius would be the worst kind of negligence. The disagreement comes to a court trial and a custody battle.

Nominally the main character is Chris Evans, but eleven-year-old Mckenna Grace grabs our attention whenever she is on-screen. She has a surprising control of her facial expression. This season she also is feature as a young Tanya Harding in I, TONYA. Another expressive face is Octavia Spencer (of HIDDEN FIGURES) as Mary's next-door neighbor. I am not sure exactly what she is doing in this movie unless to demonstrate that there are people who like Mary in spite of her differences in mentality. Lindsay Duncan plays Evelyn Adler, the grandmother who is convinced she should force Mary into studying mathematics.

The film lets the viewer decide who is right in the issue of Mary's education, but they do put a heavy thumb on the judgment scale. We have seen Pinocchio and "Star Trek"'s Data really want to become like us real humans. The best thing to be is a real live normal person. Tom Flynn, who wrote the screenplay, makes the two people who know mathematics stiff and dehumanized. (I can tell you from my days in contact with some very good mathematicians that many mathematicians are people who spend their careers following their curiosity (mathematical or otherwise) are usually more closely in touch with their humanity than nearly anyone else.

In the final analysis I would say that there are few enough truly gifted students that society can well afford to cultivate these few. Everyone will benefit by giving these people the choice to make very real contributions. And the film's implicit

implication that the truly gifted will be dehumanized is a straw bogymen. I rate GIFTED a high +1 on the -4 to +4 scale or 6/10. One touch I do appreciate is that mathematics on the blackboard looks like the real thing.

Film Credits: <http://www.imdb.com/title/tt4481414/combined>

What others are saying: [https://www.rottentomatoes.com/m/gifted\\_2017](https://www.rottentomatoes.com/m/gifted_2017)

[-mrl]

### **THE WHEEL OF TIME and "How Great Science Fiction Works"** (letter of comment by Fred Lerner):

In response to [Gwendolyn Karpierz's review of THE WHEEL OF TIME](#) in the 11/24/17 issue of the MT VOID, Fred Lerner writes:

Gwendolyn Karpierz's review of THE WHEEL OF TIME persuades me that I would not find it worth my while to invest the time it would take to read the series in its entirety. But it also leaves me with the feeling that there is a lot in its fifteen volumes that I might enjoy. I don't mind reading very long narratives: I'm eagerly awaiting the final two volumes of "A Song Of Ice And Fire", and I think I'm one of the few people in captivity who has read the entire eleven thousand pages of "The Story Of Civilization". (I couldn't wait to see how it came out.)

I wonder if the ideal solution to my dilemma would be for someone to prepare an abridgement of THE WHEEL OF TIME, one that would keep most of books three through five while drastically shortening books six through ten. I don't expect that this will ever happen. The obvious person to abridge the series, Brandon Sanderson, has books of his own to write; and the potential audience for an abridgement has most likely already read the entire series in its complete form, but perhaps some public-spirited fan will someday prepare a list of the best sections of THE WHEEL OF TIME, so that someone like me could see what makes it so appealing to so many people. [-fl]

Evelyn responds:

Synchronistically, I was just described by a friend to his nephew as one of the few people who had read the entire "Story Of Civilization". [-ecl]

And in response to [Joe Karpierz's review of "How Great Science Fiction Works"](#) in the 11/24/17 issue of the MT VOID, Fred writes:

I have a word of caution for anyone listening to Gary K. Wolfe's "How Great Science Fiction Works". If you listen to it on your car's CD player, be sure that anyone who might previously driven the car hasn't set the thing to randomise. My daughter did that once, which produced some fascinatingly incoherent results when I put in another lecture on science fiction history into the player. [-fl]

Evelyn adds:

Randomising is bad for operas as well. [-ecl]

### **Hertz Van Rental** (letter of comment by John Hertz):

In response to [Mark's comments on Hertz Van Rental](#) [that it sounded like a Dutch painter] in the 11/03/17 issue of the MT VOID, John Hertz writes:

Hertz Van Rental is a Dutch branch of the family, maybe from around Rotterdam. The name is a local version of Eijndal, i.e., Rhine Valley. [-jh]

### **This Week's Reading** (book comments by Evelyn C. Leeper):

UNQUIET SPIRITS by Bonnie MacBird (ISBN 978-0-00-820108-1) is the second in MacBird's series of Sherlock Holmes novels. It is competently written, but there is too much about the manufacture of whisky, too many characters with too many secrets in their past, and too much back story about Holmes, dribbled out in bits and pieces, although I will admit that one giant info dump of the whole story would not be better. I suppose my complaint may be more that the Holmes back story is \*too\* complicated, with too many pieces to be revealed in the first place. However, if you are the sort who wants to know everything about Holmes, from childhood on, you will probably like this more than I did. [-ecl]

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Quote of the Week:

I do not like broccoli. And I haven't liked it since I was a little kid and my mother made me eat it. And I'm President of the United States and I'm not going to eat any more broccoli.

--George H. W. Bush

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