

#### University of the Pacific Scholarly Commons

College of the Pacific Faculty Presentations

All Faculty Scholarship

8-12-2006

#### Movie Math: Mathematical Talent = Mental Illness

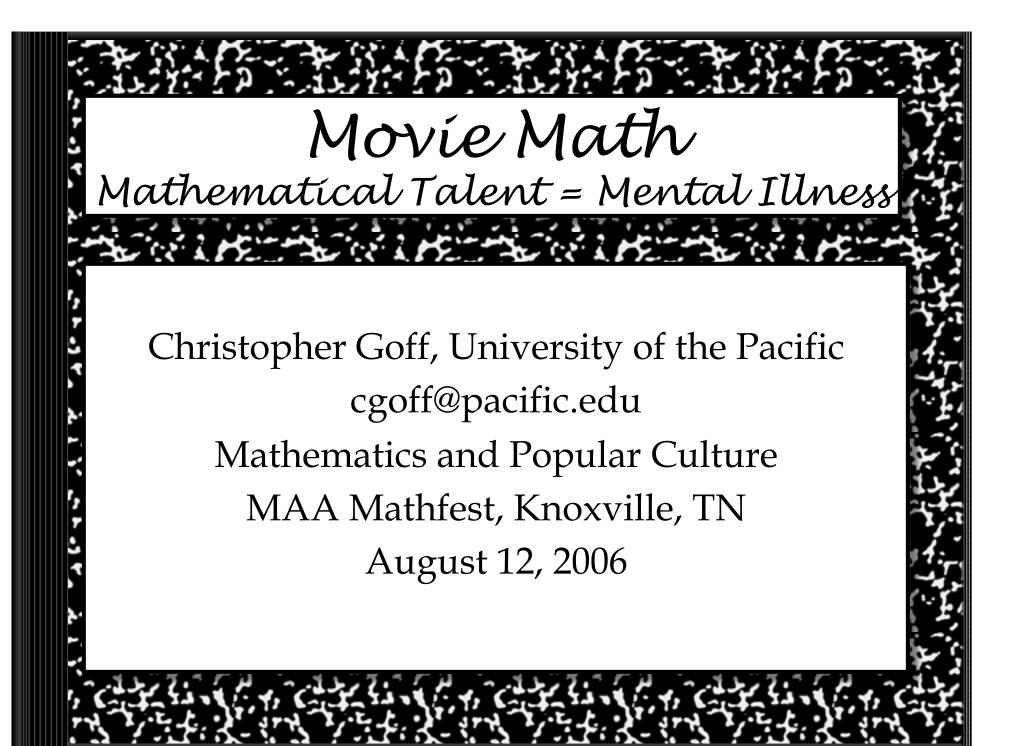
Christopher D. Goff *University of the Pacific,* cgoff@pacific.edu

Follow this and additional works at: https://scholarlycommons.pacific.edu/cop-facpres Part of the <u>Mathematics Commons</u>

#### **Recommended** Citation

Goff, C. D. (2006). Movie Math: Mathematical Talent = Mental Illness. Paper presented at Mathfest in Knoxville, TN. https://scholarlycommons.pacific.edu/cop-facpres/481

This Conference Presentation is brought to you for free and open access by the All Faculty Scholarship at Scholarly Commons. It has been accepted for inclusion in College of the Pacific Faculty Presentations by an authorized administrator of Scholarly Commons. For more information, please contact mgibney@pacific.edu.



#### Disclaimers

- I am only giving my opinion of the messages these movies are conveying.
- I am talking about the movie representation of John Nash.
- I am not an expert on mental illness.

#### A Beautiful Mind, 2001

- directed by Ron Howard
- starring Russell Crowe
- based on Nasar's biography of John Nash
- grossed over \$170 million

(estimated \$60 million budget)

## A Beautiful Mind

- Link #1: Sparkly Visions
  - light interplay from punch bowl to garish tie
  - individual numbers flash in array
  - individual stars jump out to make shapes
  - sparks stop when on medication
  - sparks return when off medication

Message: Nash sees things that aren't there.

## A Beautiful Mind

- Link #2: Diagnosis?
  - psychiatrist says schizophrenia usually diagnosed early
  - since Nash was a mathematician, his diagnosis took longer

Message: Mathematicians are expected to be awkward, strange, or "off."

## A Beautiful Mind

• Link #3: Rationalizing Hallucinations

- he realizes that Charles' niece has not aged

- ergo, she is a hallucination

Message: Mathematical talent can cure mental illness.

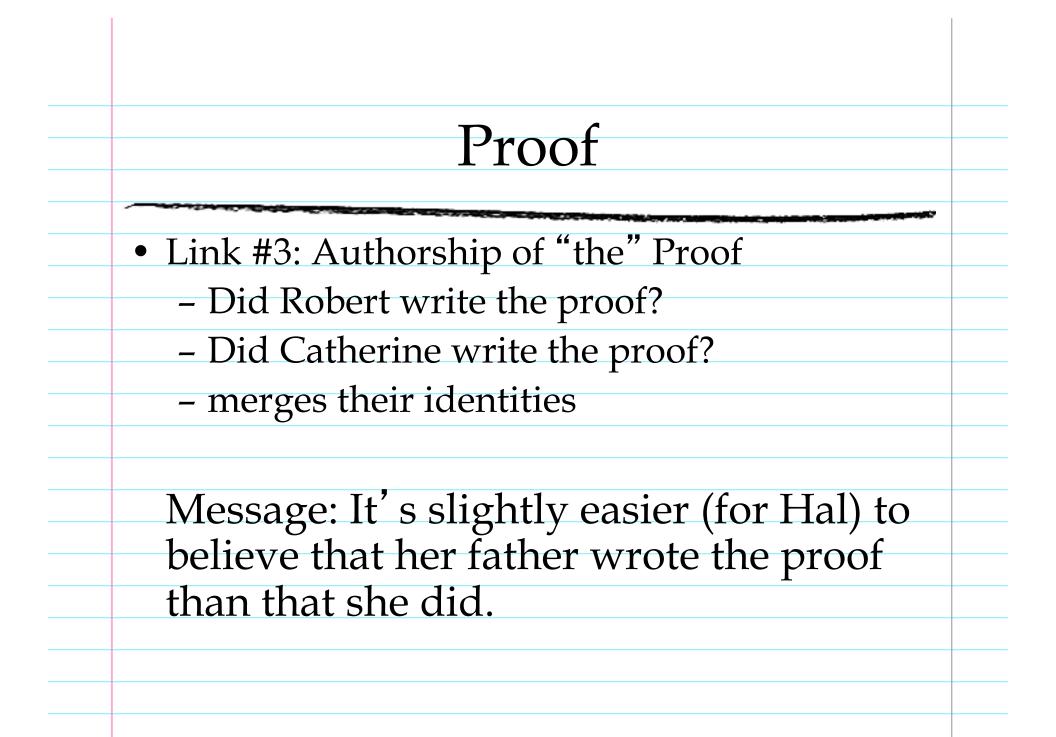
#### Proof, 2005

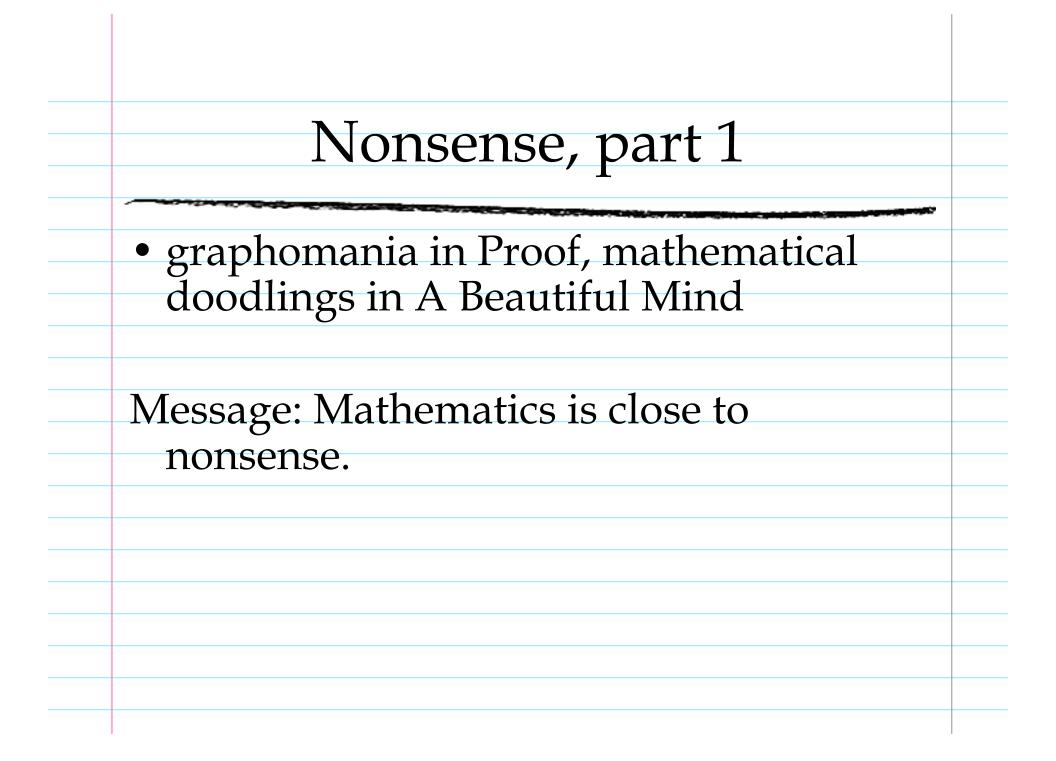
- directed by John Madden
- starring Gwyneth Paltrow, Anthony Hopkins, Jake Gyllenhaal
- based on David Auburn's play
- grossed over \$7 million

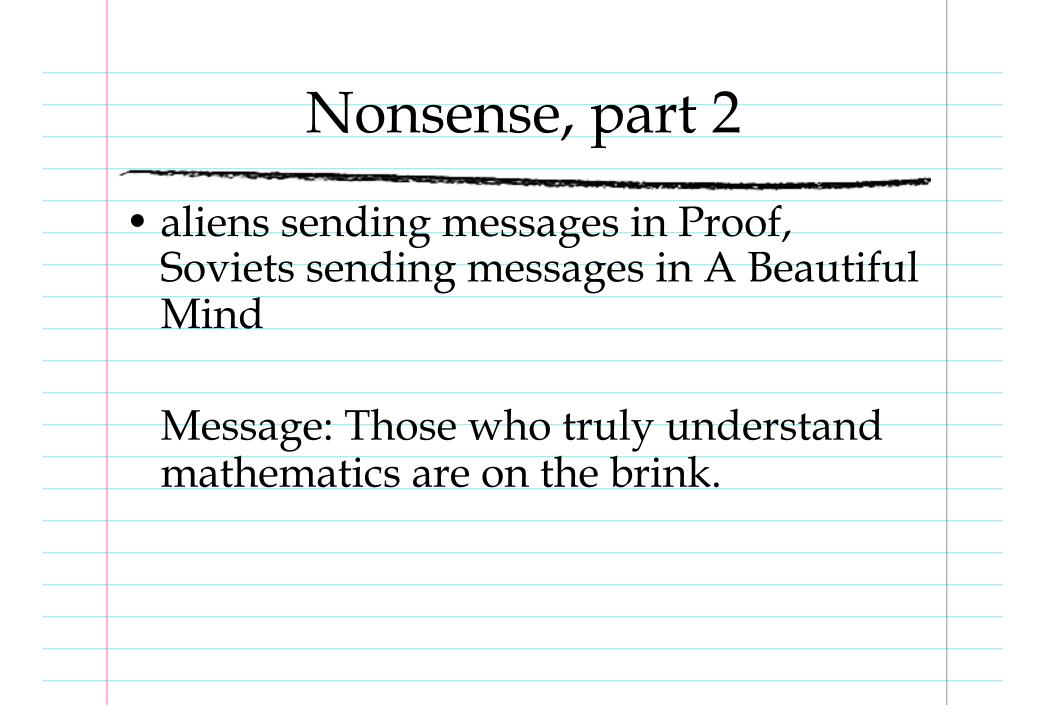
(estimated \$20 million budget)

Proof	
<ul> <li>Link #1: Teaser/Synopsis</li> </ul>	
– Will Catherine inherit her father's	
mathematical talent, his mental illn	ess, or
both?	
Message: There is a battle between	
mathematical talent and mental i	llness

Proof
Link #2: Father and Either/Or
<ul> <li>extremely talented at young age</li> </ul>
(revolutionized field twice before 22)
– "got sick" at 26 or 27, never productive again
(he did enjoy a year of clarity - movie unclear)
Message: Mathematical talent and mental
illness are two states of the same binary
system.







# Messages to the Audience

- Mathematicians see things that aren't there.
- Mathematicians are expected to be "off."
- Mathematical talent can cure mental illness.
- There is a battle between mathematical talent and mental illness.
- Mathematical talent and mental illness are two states of the same binary system.
- A mathematician (even a mentally ill one) is more likely to write a proof than his daughter (of unknown ability).
- Mathematics is close to nonsense.
- Those who truly understand mathematics are on the brink.

#### Questions

- What do students take from representations of mentally ill mathematicians?
- How do we address student comments about "crazy" mathematicians?
  - (professionally, sensitively)
- Do discussions of mental illness belong in the mathematics classroom?
- Would a run-of-the-mill mathematician character draw audiences to the box office?

Thank You!	
Any Questions?	