

Writing a Constructive Peer-Review

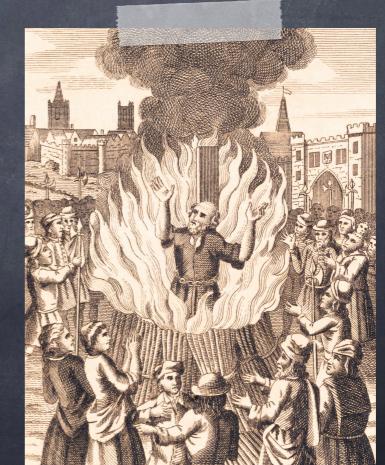
(My personal perspective...)

Workshop, May 11, 2021

1

A brief history of peer-review

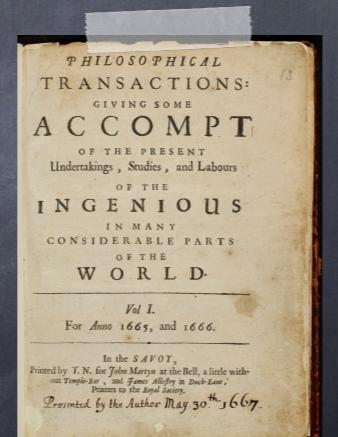
- Scientific review by the Inquisition
(we have it easy...)



2

A brief history of peer-review

- The Royal Society of London for Improving Scientific Knowledge
 - "Philosophical Transactions" (~1665)
- Review procedure - Editor & friends...
-



3

A brief history of peer-review

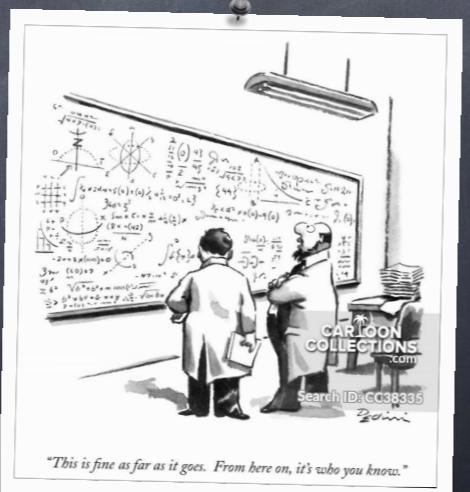
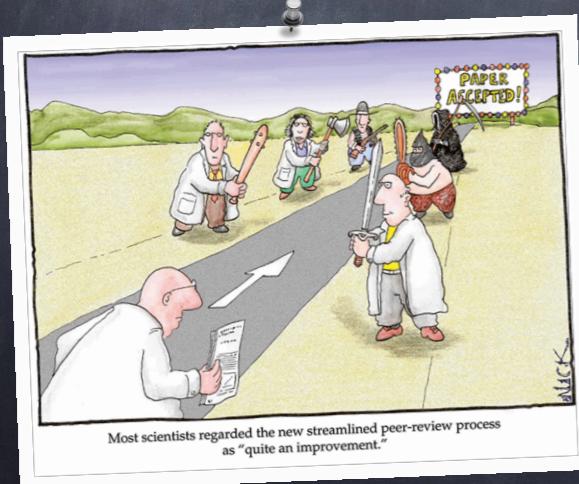
- Internal review procedure until 1940's-60's!
- Xerox!!! (~1959)
- Space becomes tight...
- Since the 18th century - anonymous reviewers

4

A brief history of peer-review

- The backlash against peer-review

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1420798/>



5

Peer-Review: my approach*

* With a lot of input from others... (e.g., Belin & Karadottir 2016)

- Before you accept:

- Do you have the right expertise?
- Do you have enough time?
- No conflict of interest?

6

Peer-Review: my approach

- Reviewing a manuscript:

- Read through the whole manuscript
- Make notes of anything that pops up on 1st read, and things to check
- Is there a clear fault in the rationale/design/execution?

7

Peer-Review: my approach

- Now, a thorough read:

- Clear rational/question/hypothesis?
- Original?
- Check the points you were not sure about

8

Peer-Review: my approach

- Solid design? Appropriate statistical analyses?
- Appropriate methods, clearly explained?
- Results are good quality and clear?
- Discussion relevant to data and conclusion supported by the findings?

9

Peer-Review: my approach

Writing the review:

- Brief summary (unless explicitly not required by the journal)
- Major issues - (strengths and weaknesses?)
- Minor issues - (detailed?) Try to help and improve!

10

Peer-Review: my approach

Recommending Rejection of a manuscript:

- Really badly written
- Experiments do not address the question, very poor statistical analyses
- No real effort to address previous comments in a revision - (quite rare)



11

Peer-Review: my approach

A note about resubmissions:

- Do not start from scratch
- Read the whole manuscript and assess if it is improved compared to the previous version
- Make sure all your comments were addressed
- If needed, indicate further changes

12

Peer-Review: my approach



The dreaded Reviewer #3:

- Endless requests (including new experiments)
- Re-design of study, re-write discussion...
- Assassination of manuscript?

13

Peer-Review: my approach

A note about high impact journals:

- Should you review differently?
 - Probably “No”

14

So, why would you want to serve as a reviewer?

- Contribute to the community
- Help improve and have influence
- Learn about the field (beyond published data)

15

Editing SciComm Articles

Cristina Sanza
Digital Journalism Instructor & Writing Coach
Projected Futures Coordinator
Department of Journalism, Concordia University

Concordia's Journal of Accessible Psychology Workshop Series

May 11, 2021

Science vs Journalism

Science

- Talk, Talk, Talk
- Take time, cover the variables
- Fond of caveats
- Write for the field, colleagues
- Simple to complex, known to unknown

Journalism

- Listen, Listen, Listen
- Snap Choices: Cover Y, ignore X
- Fond of breakthroughs
- Write for my grandmother, neighbour
- Complex to simple, unknown to known

The goal of a SciComm piece

- Bridge these worlds together
 - Accurately explain the research/scientific information
 - Tell an engaging story through the use of language, characters, connection

The ABC's of journalistic writing

- **Accuracy**
 - The writer's information is rooted in fact
 - Use of primary sources (researcher/scientist, study)
- **Brevity**
 - All words used have a purpose; get to the point
 - Limited jargon; know your audience
- **Clarity**
 - The angle of the story is clear and focused (i.e. your guiding question)
 - Angle is apparent from start to end of the piece

A standard structure

(800-1,000 word feature)

- **Lead**
 - A hook that leads the reader into the story
- **Nut graph**
 - The main point/angle of the story (“thesis statement”)
- **Body**
 - Further expansion on the main point of the story using relevant research, interviews and anecdotes
- **Ending**
 - Not always necessary, often a few sentences or a quote

LEAD (A short paragraph; ~150 words)
NUT GRAPH (A paragraph or two; ~250 words)
BODY (3-5 paragraphs; ~450 words)
ENDING (brief; ~75 words)

Leads

- Hints at the subject without revealing the whole story: a **hook**
- Some go-to suggestions:
 - **Introduce a character**
 - **Start with a statistic**
 - **Use an analogy**
 - **Pose a question** (it should be really strong)
 - **First person story** (your connection to the story must be clear)

Nut graph

- A paragraph (sometimes two) giving the reader the main focus of your story
 - Introduce the main research your piece is based upon (who, what, when, where)
 - Tell the reader why the topic is one that people should care about by connecting it to “real-life” (statistics can help here)

Endings

- A concise wrap-up of the article that should leave the reader satisfied or thinking
 - **End by telling:** telling a final new point that brings everything together
 - **End by showing:** an anecdote that shows the story's resolution
 - **End by quoting:** a source is used to give a provocative statement
 - **End with ambiguity:** the science as uncertain; more work to be done
 - **End with surprise:** catch the reader off guard with a kicker

The structure, employed

- Family meals are good for the grown-ups, too, not just the kids (Anne Fishel, The Conversation)
- Neuroscience has a part in why you're playing Taylor Swift's songs on repeat (Sarah Anderson, Massive Science)
- Bird-like dinosaur could hunt in total darkness, pointing to thriving prehistoric 'nightlife' (Thomson Reuters, CBC)
- Battling Winter with Brine (Maya Lach-Aidelsbaum & Laurence Brisson Dubreuil, The City)

What does an editor do?

1. **Fact-check.** Verify that sources, statements and numbers in the piece are accurate.
2. **Copy-edit.** Review the piece for grammar, spelling, word choice and basic sentence structure.
3. **Improve Storytelling.** Ensure storytelling is clear, concise and paragraphs flow from one to the next, while keeping the writer's voice.
4. **Offer feedback.** Give comments to help the writer improve.

Fact-checking Checklist

Sources

- Are the sources primary?
- Are the sources considered experts on the topic?
- Do the sources have any conflict of interest with the topic?
- Are the sources based on the most current, up-to-date information available?

Statements

- Are statements attributed to a primary, credible source? (i.e., not a news outlet)
- If an individual is quoted, has what they said been verified?
- If the statement is an opinion, is the writer qualified as an expert on this topic?
- Are statements/science adequately explained?

Numbers

- Are the numbers correct when looking back at the original source of the information?
- Are numbers put into context?
- Are the limitations of the numbers/research stated, if applicable?
- Are the numbers relevant to the message of the story?

Copy-editing Checklist

Grammar/Spelling

- Is the grammar tense consistent? (Whether past or present)
- Is the spelling consistent? (ex: favourite vs favorite)
- Are proper names, places and titles spelled correctly?
- Is punctuation correct? (*i.e.*, no missing or unnecessary commas)

Word Choice

- Are words simple, but descriptive? (ex: *I am very mad* vs *I am furious*)
- Is jargon mostly avoided, or if necessary to include, explained?
- Are uncommon acronyms spelled out?
- Are “hype” or buzzwords avoided? (ex: *ground-breaking*, *life-changing*)
- Is language and tone light and relatable? Is academic lingo kept to a minimum?

Sentence Structure

- Are sentences clear and simple to understand?
- Are sentences or direct quotations kept fairly short and broken up when necessary?
- Are sentences written in active voice for the most part? (ex: *She gave a lecture* vs *the lecture was given by*)
- Have unnecessary words been edited out?

Storytelling Checklist

Storytelling

- Is the lead/opener engaging?
- Is the focus of the story clear throughout the piece?
- Are colourful analogies, anecdotes or descriptions used to keep things engaging?
- Has the writer appealed to the senses (sight, smell, taste, touch, sound) to engage and relate to the reader?
- Are there strong characters helping the reader move through the story?
- Is the writer's voice still present in the edited version?

Overall Structure/Flow

- Does each paragraph flow to the next? (i.e., do the ideas develop from one to another)
- Are paragraphs kept fairly short and readable? (3-4 sentences for the most part)
- Are human voices (quotes) used where possible to break away from regular written sentences?

Feedback Checklist

Comments/Questions

- Do you have any questions for the writer after reading the piece?
- Do you provide positive comments about what the writer did well?
- Do you provide some suggestions for how the writer can improve future pieces?
- Are your comments given in a professional, constructive manner?
- If the piece is not currently publishable, have you explained why and what needs to be done to get it there?

Overall Help

- If necessary, have you offered to help them review another draft of the piece?
- If there is something particular the writer struggled with, have you pointed them to relevant resources?
- Has the writer been given any writing style guides relevant to your publication?

Some Advice

- **Learn by writing.** The more you write, the more in tune you'll be with how to craft sentences and structure a piece. This will in turn make you a better editor.
- **Learn by reading.** The more articles you read, the more familiar you'll become with writing practices.
- **Everyone edits differently.** An editor should keep the essence of the writer's voice and get their points across to the reader, while ensuring their writing is clear, accurate, and engaging
- **Be patient.** Good editing takes time and practice!

Resources & Inspiration

- The Open Notebook: <https://www.theopennotebook.com/>
- Science Blogging Guidebook:
<https://www.theopennotebook.com/science-blogging-essential-guide/>
- Projected Futures: <http://concordia.ca/projectedfutures>
- Studies Verification Checklist:
<https://docs.google.com/document/d/1nVwhKbZpwJyys5uGcENBYVPNr8vu-5aXFjPKU6vn-00/edit>
- rehabINK: <https://rehabinkmag.com>
- Massive Science: <https://massivesci.com>

Thank you!

Contact me:
cristina.sanza@concordia.ca

This PowerPoint included some files from our
Projected Futures Science Journalism summer
course, led by Journalism Chair Dr. David Secko.

Let's edit!

Restructuring exercise:

<https://docs.google.com/document/d/12-UWmQ8vtvExCmVL5S8E5sNnlcJM1SqGRDZj9O3OyAk/edit?usp=sharing>

Answer key:

<https://docs.google.com/document/d/1y5YyCHHHSUycD9kGGuDMwMAHiH83YIZGbnh8rmyr6gw/edit?usp=sharing>
