

Peer-reviewing scientific papers

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The responsibility: public distrust of science

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Print This Post

Ex-Vaccine Developer Reveals Lies the Vaccine Industry is Built Upon in Interview

What pushes scientists to lie? The disturbing but familiar story of Haruko Obokata



HOT AIR

HOME VAULT ED MORRISSEY SHOW NEWSLETTERS

Welcome to the 6th mass extinction (which you caused, of course)

POSTED AT 7:01 PM ON JUNE 20, 2015 BY JAZZ SHAW

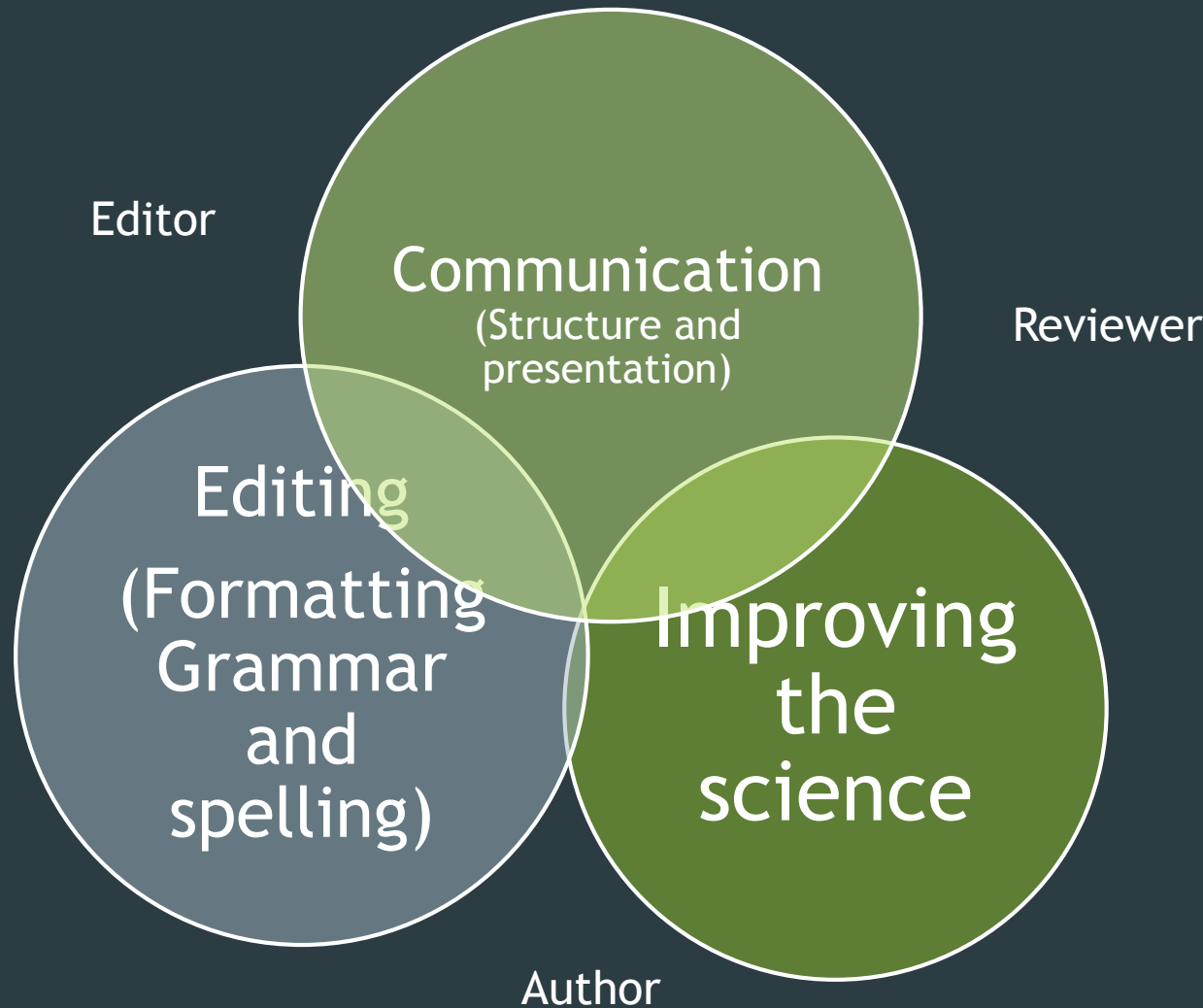
The invitation: terrifying for a young scientist

Three questions

- ▶ Do I have the expertise?
- ▶ Do I have the time?
- ▶ Am I free of conflicts of interest and bias?



The reviewer's role: leave the commas to the editor



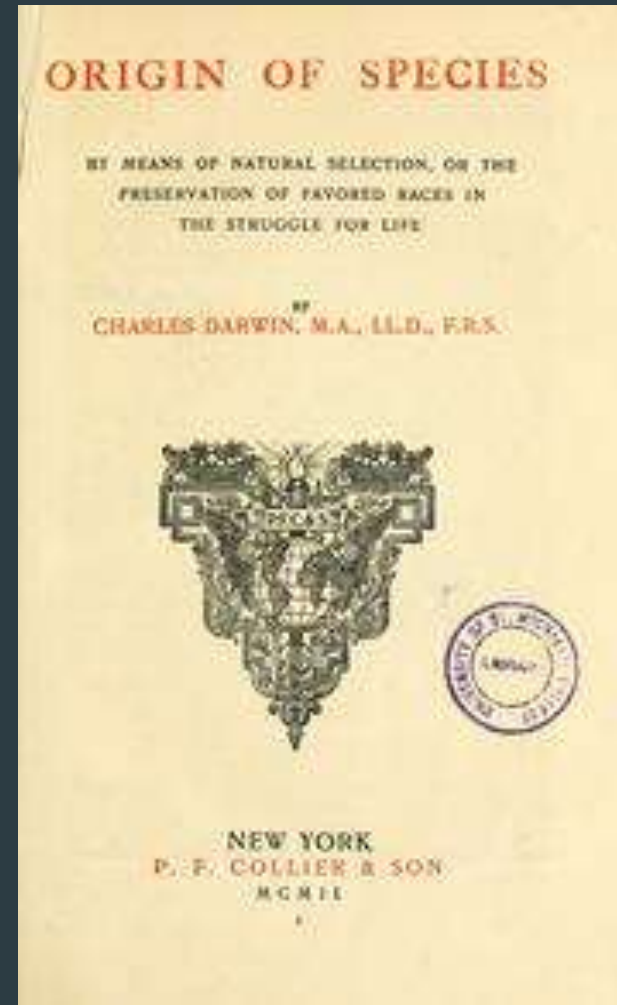
The big picture: what's it about?

- ▶ Read and understand abstract and paper
 - ▶ Read again, make notes
 - ▶ SUMMARISE your understanding of objectives, approach, conclusions
-
- ▶ The main question: “So what?”

Data + statistics \neq science

Clarity of thought

Darwin and his contemporaries did not have the statistical tools we take for granted today. They presented their evidence carefully and logically



The nitty-gritty: looking at the details

- ▶ Carefully read again.
- ▶ Make notes
- ▶ Investigate background, justification, methods, design, results and interpretation
- ▶ **Read the literature!**

Check the data and information presented

See anything odd?

	A	B	C	D
Variable 1	145.8	134.9	1.282	198.0
Variable 2	1.897	2.098	120.3	1.045

What about these?

- ▶ “...total soil carbon could exceed 200mg.ha⁻¹” (Soil carbon is measured in tonnes [Mg] not milligrams [mg])
- ▶ “The study was conducted in central Zambia... Mean annual precipitation of 254mm” (Bit dry?)
- ▶ “...in northern Zimbabwe (S12° 34’, E27° 16’)” (Zimbabwe lies south of S15°)

The recommendation: improving the paper

- ▶ Respectful
- ▶ Practical suggestions
- ▶ Improvements
- ▶ Questions for clarification

The follow-up: is it better?

- ▶ Review the revisions
- ▶ May be contradictory recommendations
- ▶ Editor makes the final decision

Authors will learn more
from a good rejection
than from a poor
acceptance

Resources: Google these for more help

- ▶ Peerage of Science website
- ▶ Frederic Hoppin. 2002. How I review an original scientific article. *American Journal of Respiratory and Critical Care Medicine*. (166): 1019-1023