



Opening the Editor's Black Box: Insider Tips for Successful Submissions

Greta Heydenrych, Ph.D.

Editor-in-Chief: *ChemPhysChem* and *ChemPhotoChem*



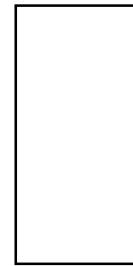
The Peer-Review Process

Decisions, decisions...

From outside:



Reject



Accept

From inside:



Reject

Everything else

Accept

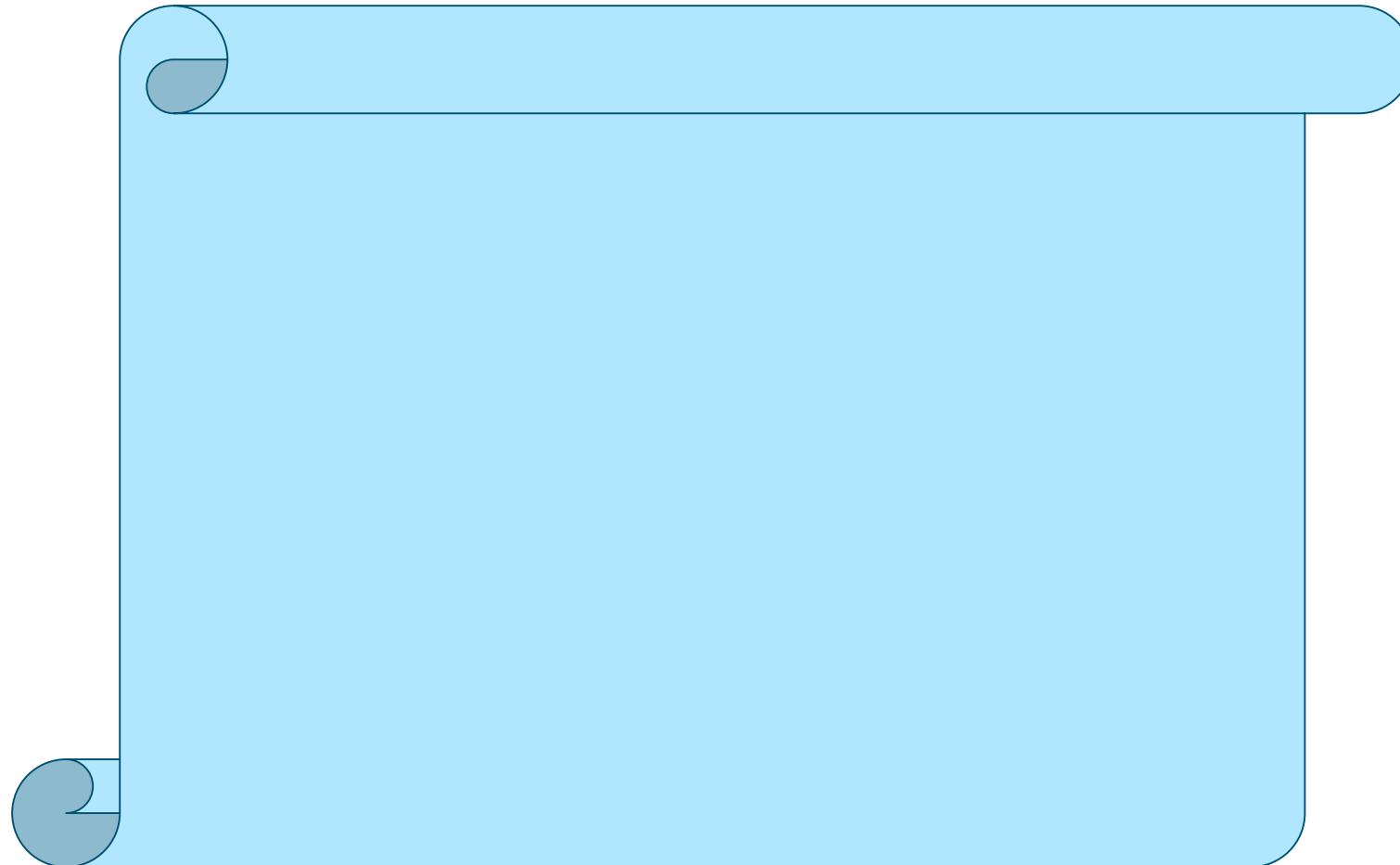
Choosing a journal for submission

- Is the journal published by a reputable publisher?
- Format: Is your manuscript a Communication or a Full Paper?
- Which journals do you read to learn more about your own field?
- Which journals did you cite in your Results and Discussion section?
- Where do other groups in your research area publish?
- Open Access options

What editors look for



The cover letter



The cover letter

Dear Editor,

We would like to submit our manuscript "Fantastic Synthesis of Really Interesting Compounds" to your journal. We hope you will find it acceptable for publication.

Yours sincerely,

A. N. Author

The cover letter

Dear Dr. Heydenrych,

We would like to submit this manuscript to
ChemPhysChem.

...

Thank you for considering our manuscript for
publication in *Journal of Physical Chemistry Letters*.

Yours sincerely,

A. N. Author

The cover letter

Dear Editor,

Here, we report a series of **potent** anticancer agents with a **novel** pharmacophore that were synthesized via an **efficient** 3-step route...

This is the **first** report of the selective targeting

...

Yours sincerely,

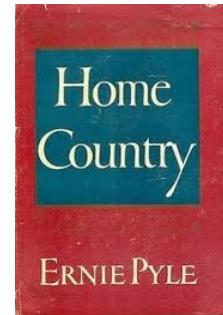
A. N. Author

The cover letter

- Address the Editor-in-Chief
- Explain...
 - the purpose of your study
 - why this topic is important
 - which scientific advances have been made
 - why the manuscript is suitable for this particular journal

Suggesting reviewers

Avoid
suggesting:



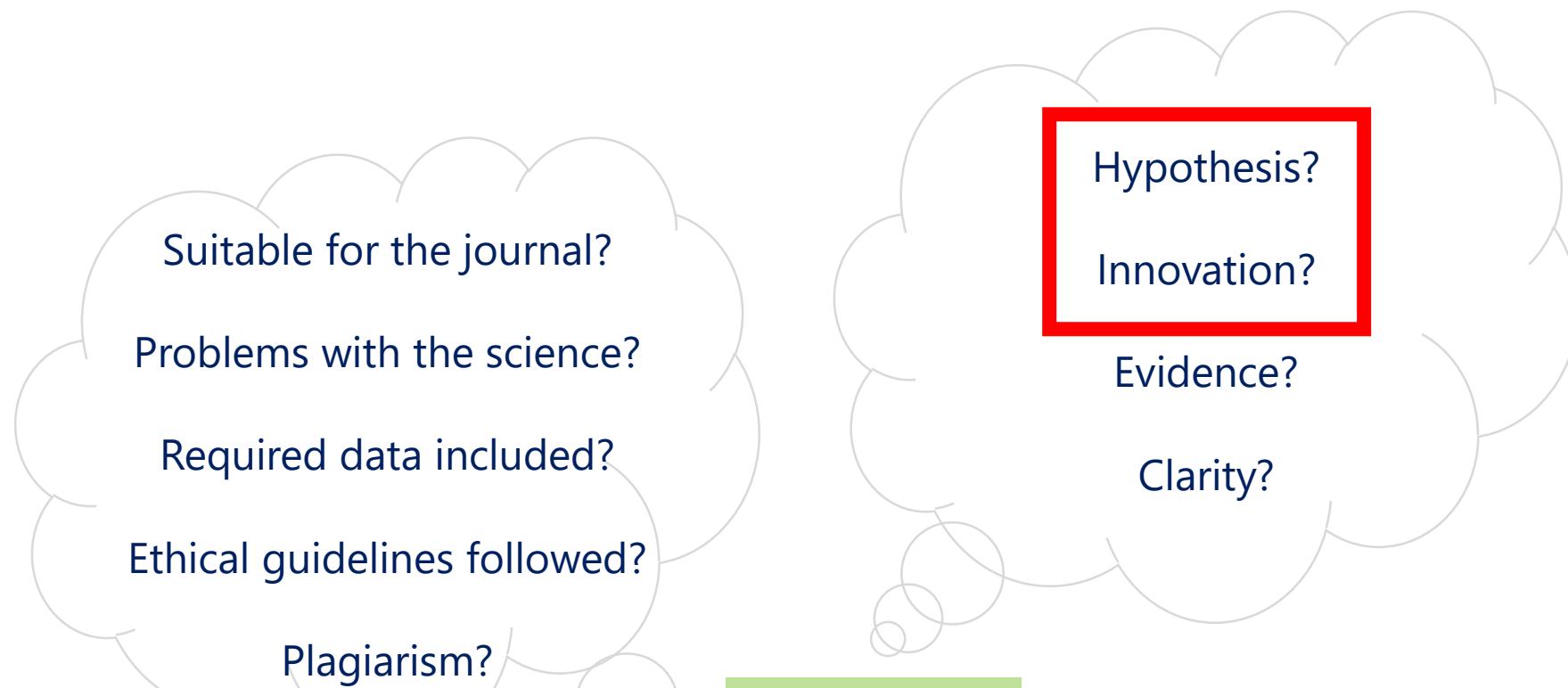
The 3W Rule: Who, Where, Why?

Prof. A, London Univ., expert in Mannich reactions

Prof. B, Tokyo Univ., expert in biology of steroids

Dr. C, ChemCo, Ltd., expert in crystallisation

What editors look for



Defining “novelty”



Yield

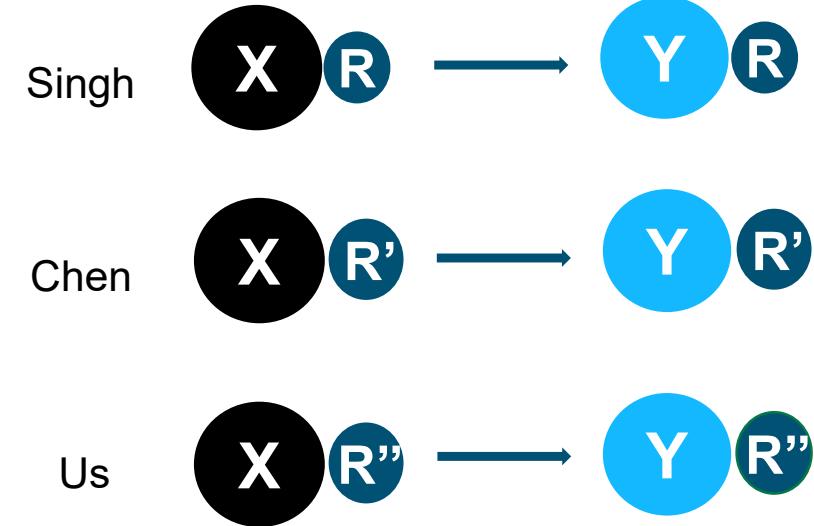
Singh et al.	50%	10%
Chen et al.	60%	15%
Our work	70%	95%



...Incremental improvements
are guaranteed to be obsolete over time”

Larry Page, Google

“Me too!” papers

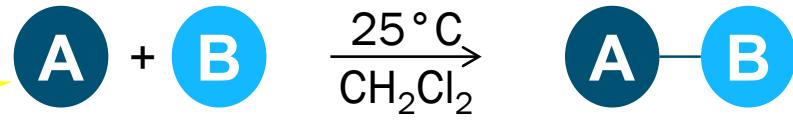


“The title contains the word “novel”.
I generally read “A novel” as “Another.”

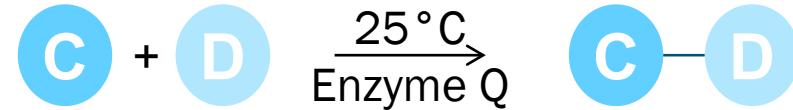
Referee report, *Advanced Functional Materials*

Reviewers (and editors!) dislike overselling

Unwort des Jahres:
„synergistic“

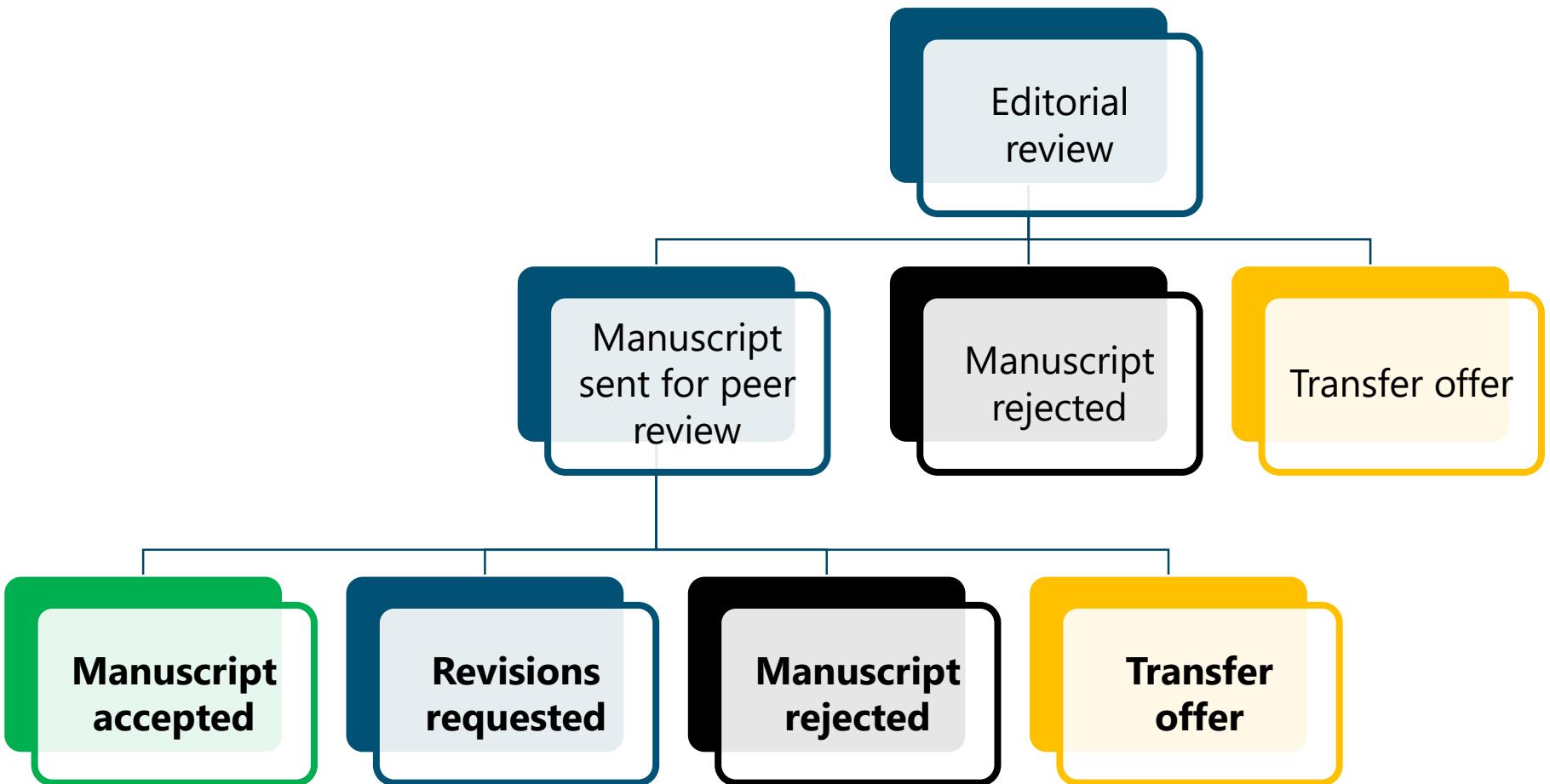


Room temp. \neq “green chemistry”



Enzyme-catalysed \neq “biomimetic”

Ready for a decision?



Manuscript rejection

- This is an opportunity to improve your paper – Take it!
- Make the changes recommended by the referees because an unchanged paper
 - may be sent to the same referees by the next journal
 - is likely to get the same or similar comments even from different referees
 - Readers might come to the same conclusions as the referees

Revision

View the reviewer as a **generic reader** of your published paper.
What message do you want to convey to them?

- Respond to all comments in the “Response to Referees”
- Take time to respond to all comments, it could save further peer review
- If you disagree with a comment, explain why and still consider revising the article in some way to clarify your argument
- Highlight the changes made in the manuscript
- Don’t just do the things specifically mentioned

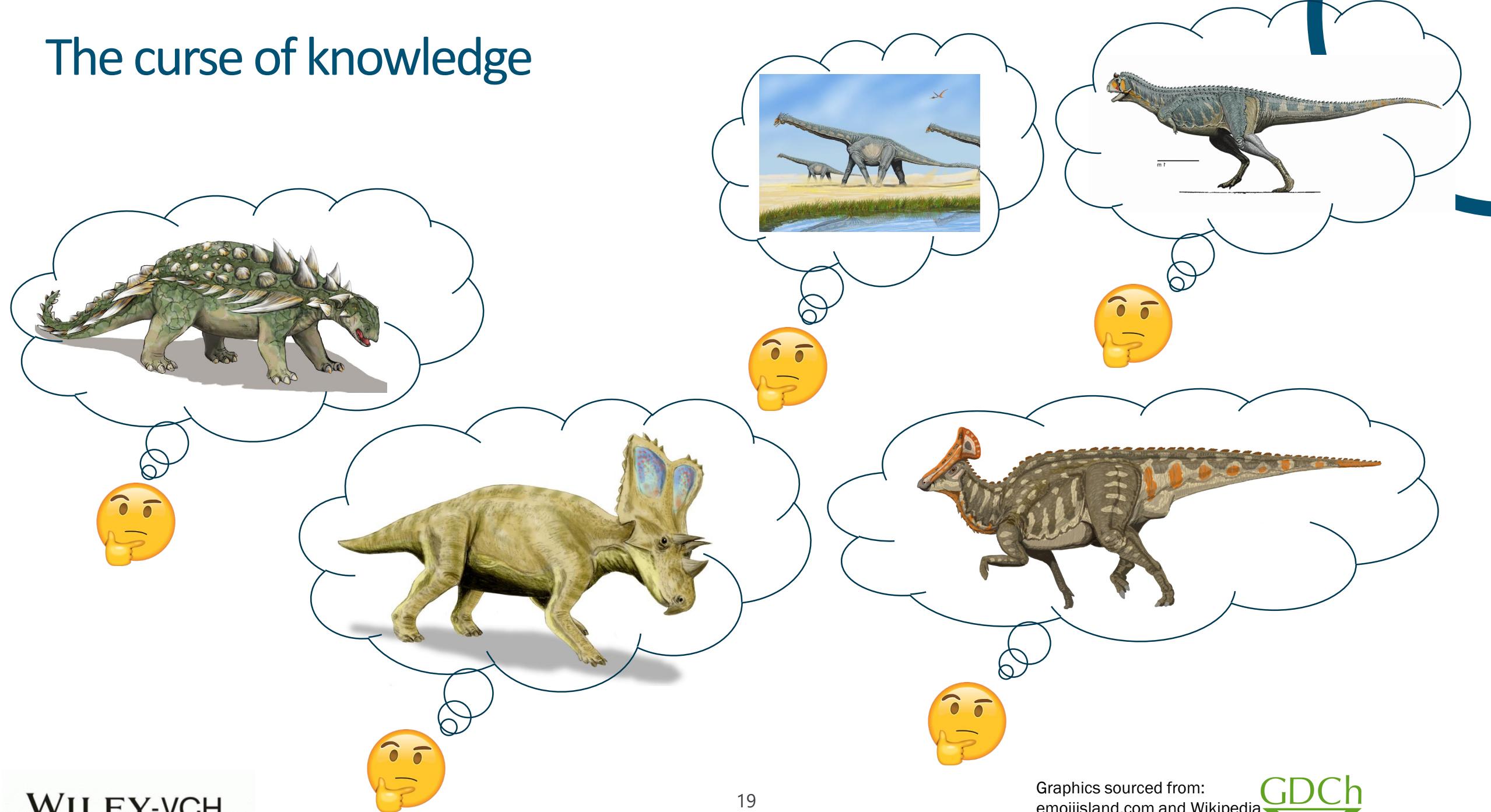


The revised manuscript (and your response) referees might be sent back to the same referees!



Manuscript Writing

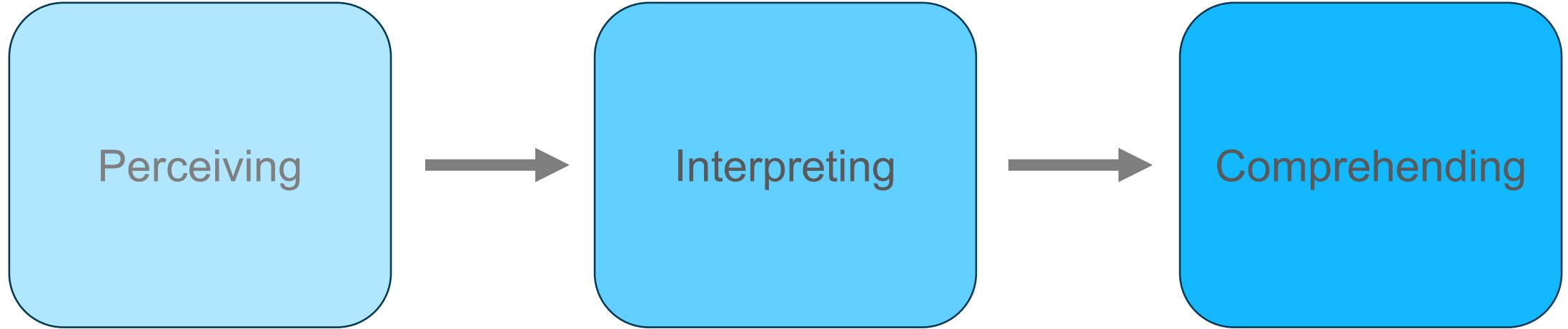
The curse of knowledge



The curse of knowledge



The process of reading a paper



What does the data show?
Trends?
Interconnections?
What depends on what?

What is important?
Better to increase?
Is it significant?
Any surprises?

What are the conclusions?
Confirmation or new insight?
What are the consequences?
Why is this relevant?

Andy Kirk, *Data Visualisation*, Sage, 2016

Self-conscious style

The writer's chief, if unstated, concern is to escape being convicted of philosophical naiveté about his own enterprise

We want people to think we know our stuff

We want people to think we are smart!!

Bad Science = Bad Reviews

Complex Writing = ?



Research Article

Consequences of erudite vernacular utilized irrespective of necessity: problems with using long words needlessly

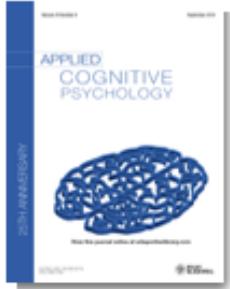
Daniel M. Oppenheimer*

Article first published online: 31 OCT 2005

DOI: 10.1002/acp.1178

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Issue



Applied Cognitive Psychology

Volume 20, Issue 2, pages
139–156, March 2006

“...negative relationship between complexity [of a text] and judged intelligence [of the author]”.

“...needless complexity leads to **negative evaluations**”.

Simple text = better reviews?

"Anecdotally, I have started applying my research to grant proposals, and have been much more successful at receiving grants since I made an effort to increase the fluency of the proposals (not just in vocabulary, but in formatting and font size). It's a small sample, and hardly reliable, but suggestive nonetheless."



**scientific writing ≠ must be complicated
complex writing blurs focus!**

How to simplify your writing

Make your paper easy to read – “fluency”

Typical (entirely fictional) example:

unnecessary

Functionalized polythiophene compound 1 exhibits attractive electronic properties and shows fluorescence due to functionalized polythiophene 1 possessing a benzyl group at the C5 position.

repetition

can be simplified

The diagram illustrates the simplification of a sentence. It features a large blue arrow pointing downwards from the word 'unnecessary' to the word 'compound'. Another blue arrow points upwards from the word 'repetition' to the word 'functionalized'. A large blue arrow on the right points diagonally upwards and to the left from the word 'due' to the word 'group'. A smaller blue arrow points diagonally upwards and to the left from the word 'possessing' to the word 'group'.

Increase the information density

Functionalized polythiophene

compound 1 exhibits attractive electronic properties and shows fluorescence due to functionalized polythiophene 1 possessing a benzyl group at the C5 position.



Functionalized polythiophene **1** has attractive electronic properties and fluoresces because it has a benzyl group at the C5 position.

low information density

high information density

Avoid!



Nominalisation

“Calculation of X was performed” = “X was calculated”

Title & Abstract – Tools for discovery

Web of Science

Search Search Results Tools ▾ Searches an

[Free Full Text from Publisher](#) [Full Text Options ▾](#) [Export...](#) [Add to Marked List](#)

Efficient Conversion of Light to Chemical Energy: Directional, Chiral Photoswitches with Very High Quantum Yields

By: Moermann, W (Moermann, Widukind)^[1]; Tellkamp, T (Tellkamp, Tobias)^[1]; Stadler, E (Stadler, Eduard)^[2]; Rohricht, F (Roehricht, Fynn)^[1]; Nather, C (Naether, Christian)^[3]; Puttreddy, R (Puttreddy, Rakesh)^[4,5]; Rissanen, K (Rissanen, Kari)^[4]; Gescheidt, G (Gescheidt, Georg)^[2]; Herges, R (Herges, Rainer)^[1]

[View Web of Science ResearcherID and ORCID](#)

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[View Journal Impact](#)

Titles and **Abstracts** are searchable separately from the main paper in databases and online.

Targeting your title

**Effect of Metal Catalyst on
the Outcome of Coupling
Reactions with Aryl
Alcohols**



What effect?



Which metal(s)?

What type of coupling reaction(s)?

Which aryl alcohols?

**Ruthenium Trichloride
Catalysed C-H Alkylation of
2,4-Disubstituted Aryl
Alcohols**



Specific

Concise

Contains many keywords

Abstract

You probably would:

- explain the key ideas (keywords) and main findings
- only give the most important data
- tell them the conclusions drawn from your results
- not include things that need context to understand

You have 20 seconds to explain your work to a scientist who is unfamiliar with it.



Introduction



Grubbs' catalysts have received increasing attention from researchers in the last decade...

Ketone G is found in many natural products and has interesting biological activity...

Group Y is one of the most common/attractive/useful...



Grubbs' catalysts are ruthenium-based carbene complexes that are used in the synthesis...

Ketone G is isolated from the *Interestingus weirdus* group of plants and is an anticancer agent...

Group Y has been applied in solar-cell research because...

References

- Do not miss any important related manuscripts
- Cite the first studies on this topic
- Consider including Review articles
- Aim for a good balance between the original, first studies and recent findings
- Make a sensible selection

- [1] Selected reviews on NHC catalysis: a) K. Zeitler, *Angew. Chem. Int. Ed.* **2005**, *44*, 7506; b) D. Enders, O. Niemeier, A. Henseler, *Chem. Rev.* **2007**, *107*, 5606; c) N. Marion, S. Diez-González, S. P. Nolan, *Angew. Chem. Int. Ed.* **2007**, *46*, 2988; d) V. Nair, S. Vellalath, B. P. Babu, *Chem. Soc. Rev.* **2008**, *37*, 2691; e) E. M. Phillips, A. Chan, K. A. Scheidt, *Aldrichimica Acta* **2009**, *42*, 55; f) J. L. Moore, T. Rovis, *Top. Curr. Chem.* **2010**, *291*, 77; g) A. T. Biju, N. Kuhl, F. Glorius, *Acc. Chem. Res.* **2011**, *44*, 1182; h) K. Hirano, I. Piel, F. Glorius, *Chem. Lett.* **2011**, *40*, 786; i) P.-C. Chiang, J. W. Bode, *TCIMeru* **2011**, *149*, 2; j) V. Nair, R. S. Menon, A. T. Biju, C. R. Sinu, R. R. Paul, A. Jose, V. Sreekumar, *Chem. Soc. Rev.* **2011**, *40*, 5336; k) Z. Q. Rong, W. Zhang, G. Q. Yang, S.-L. You, *Curr. Org. Chem.* **2011**, *15*, 3077; l) H. U. Vora, T. Rovis, *Aldrichimica Acta* **2011**, *44*, 3; m) D. T. Cohen, K. A. Scheidt, *Chem. Sci.* **2012**, *3*, 53; n) X. Bugaut, F. Glorius, *Chem. Soc. Rev.* **2012**, *41*, 3511; o) A. Grossmann, D. Enders, *Angew. Chem. Int. Ed.* **2012**, *51*, 314; p) J. Douglas, G. Churchill, A. D. Smith, *Synthesis* **2012**, *44*, 2295; q) J. Izquierdo, G. E. Hutson, D. T. Cohen, K. A. Scheidt, *Angew. Chem. Int. Ed.* **2012**, *51*, 11686; r) S. J. Ryan, L. Candish, D. W. Lupton, *Chem. Soc. Rev.* **2013**, *42*, 4906; s) S. D. Sarkar, A. Biswas, R. C. Samanta, A. Studer, *Chem. Eur. J.* **2013**, *19*, 4664; t) S. J. Connolly, *Angew. Chem. Int. Ed.* **2014**, *53*, 1203; u) J. Mahatthananchai, J. W. Bode, *Acc. Chem. Res.* **2014**, *47*, 696; v) M. N. Hopkinson, C. Richter, M. Schedler, F. Glorius, F. *Nature* **2014**, *510*, 485; w) M. Binanzer, S.-Y. Hsieh, J. W. Bode, *J. Am. Chem. Soc.* **2011**, *133*, 19698; x) Z. Fu, J. Xu, T. Zhu, W. Leong, Y. R. Chi, *Nature Chem.* **2013**, *5*, 835; y) K. Namitharan, T. Zhu, J. Cheng, P. Zhang, X. Li, S. Yang, B.-A. Song, Y. R. Chi, *Nature Commun.* **2014**, *5*, 1982; z) D. M. Flanigan, F. Romanov-Michailidis, N. A. White, T. Rovis, *Chem. Rev.* **2015**, DOI: 10.1021/acs.chemrev.5b00060.

Graphics: The good, the bad and the ugly

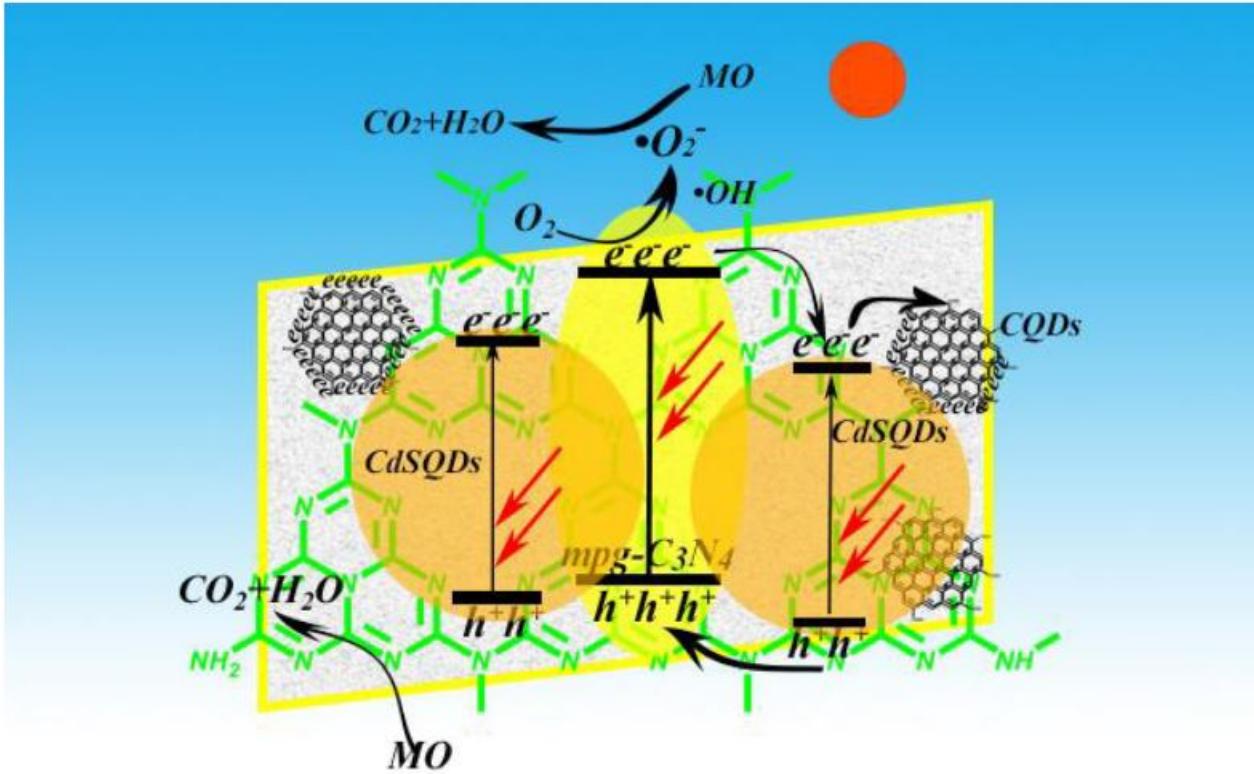
„If it looks significant, then it should be.“

- Andy Kirk, *Data Visualisation*

- It should represent your data accurately and truthfully
- Colour should be functional
- Aspect ratio should be an honest reflection of the data
- Annotations, scales and legends should be complete
- Unusual chart types should be properly explained



Graphics: “If it looks significant, then it should be“



Keep it simple!

“Broadly speaking, short words are best,
and the old words, when short, are best of all.”

Sir Winston Churchill

“Never use a long word where a short one will do.”

George Orwell

“If it sounds like writing, I rewrite it.”

Elmore Leonard



Thank you!

Any questions?

Ideas?

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