

Increase Publishing Probability - Some Simple Rules to Follow

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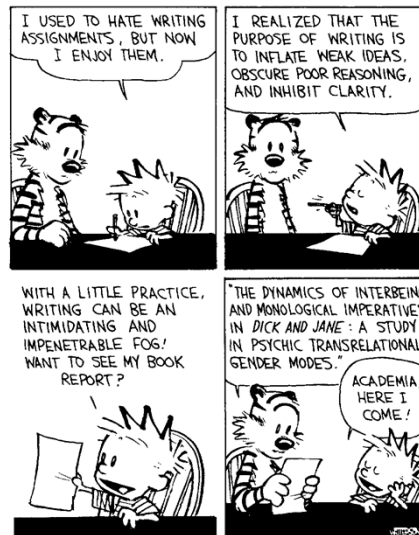
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Writing Well & Academics

● Oxymoron? It does not have to be.



Bourne Rule 1

- Rule 1: Read many papers, and learn from both the good and the bad work of others

- It is never too early to become a *critic*

- ☀ Journal clubs: critique a paper as a group - excellent for having this kind of dialogue

- ☀ Reading:

- ✗ At least 2 papers/day
- ✗ In detail
- ✗ Not just in your area of research
- ✗ Examine their quality



Bourne Rule 1 (cont.)

- Rule 1: Read many papers, and learn from both the good and the bad work of others.

- Being well read has another potential major benefit

- ☀ Facilitates a more *objective* view of one's own work
- ☀ Too easy after many late nights spent in front of a computer screen &/or lab bench to convince yourself that your work is the *best invention since sliced bread*
- ☀ More than likely it is not, and your mentor is prone to falling into the same trap

- ☀ Hence...

Bourne Rule 2

- Rule 2: The more *objective* you can be about your work, the better that work will ultimately become
 - *Objectivity* about your own work will make you a better scientist/engineer
 - Learn *objectivity* early - the editors and reviewers have



"I'd like your honest, unbiased and possibly career-ending opinion on something."

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Bourne Rule 3

- Rule 3: Good editors and reviewers will be objective about your work
 - The quality of the editorial board is an early indicator of the review process
 - Outstanding editors demand and get outstanding reviews
 - Put your energy into improving the quality of the manuscript *before* submission
 - Ideally, the reviews will improve your paper
 - But, if there are *fundamental flaws* - editors will just *reject* your manuscript

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Bourne Rule 4

- Rule 4: If you do not write well in the English language, take lessons early; it will be invaluable later
 - Not just about grammar, but more about *comprehension*
 - The best papers - complex ideas are expressed in a way that those who are less immersed in the field can understand
 - Have you noticed that the most renowned scientists often give the most logical & simply stated yet stimulating lectures?
 - This extends to their written work as well

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Bourne Rule 4 (cont.)

- Rule 4: If you do not write well in the English language, take lessons early; it will be invaluable later
 - Writing *clearly* is valuable - even if your ultimate career does not hinge on producing good scientific papers in English language journals
 - Submitted papers that are *not clearly written* in good English
 - ☀ Often *rejected*
 - ☀ Or, at best, *slow to publish* since they require extensive copy editing

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Bourne Rule 5

● Rule 5: Learn to live with rejection.

- A failure to be objective can make *rejection* harder to take, and you will be rejected!
- Scientific careers are *full of rejection*, even for the best scientists



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Bourne Rule 5 (cont.)

● Rule 5: Learn to live with rejection.

- The correct response to a paper being rejected or requiring major revision is to:
 - ☀ *Listen* to the reviewers
 - ☀ Respond in an *objective*, not subjective, manner.
- Reviews reflect how your paper is being *judged—learn to live with it.*

Dear *Sam*,
Thank you for your recent submission. I have given careful consideration to your material but regret that your Valentine is not suited to my current needs.
I thank you for giving me the opportunity of reading it.
Linda



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B.C. WRITER

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As if rejection weren't enough.

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Bourne Rule 5 (cont.)

● Rule 5: Learn to live with rejection.

- If reviewers are *unanimous* about the poor quality of the paper, move on—in virtually all cases, *they are right*.
- If they request a major revision:
 - ☀ Do the major revision
 - ☀ Address every point they raise
 - ✗ Both in your cover letter
 - ✗ Through obvious revisions to the text.
- Multiple rounds of revision are painful for all those concerned and slow the publishing process.



Bourne Rule 6

● Rule 6: The ingredients of good science are obvious

- Novelty of research topic
- Comprehensive coverage of the relevant literature
- Good data
- Good analysis including strong statistical support
- Thought-provoking discussion



Bourne Rule 6 (cont.)

● Rule 6: The ingredients of good science are obvious

- Be *objective* about these ingredients when you review the first draft & do not rely on your mentor
 - ☀ Get a candid opinion by having the paper read by colleagues without a vested interest in the work
 - ☀ Include those not directly involved in the topic area
 - ☀ But give them finished work - if you give them half finished work, it's a waste of their time

Bourne Rule 7

● Rule 7: Start writing the paper the day you have the idea of what questions to pursue

- This helps:
 - ☀ Define scope of study
 - ☀ Facilitates hypothesis-driven science
 - ☀ Encourages the thought process of the experiments prior to performing the experiments which will reveal flaws
- Doing the thinking & writing up front will lessen the experimental work over the long run



Bourne Rule 7 (cont.)

● Rule 7: Start writing the paper the day you have the idea of what questions to pursue

- The temptation of novice authors is to try to include everything they know in a paper
 - ☀ Your thesis is/was *everything* including your "kitchen sink"
 - ☀ However, your papers should be:
 - ✗ Concise
 - ✗ Impart as much information as possible in the least number of words
- Be familiar with the "*Guide to Authors*"
 - ☀ Follow it - the editors and reviewers do
 - ☀ Maintain a good bibliographic database *as you go*, and read the papers in it

Bourne Rule 8

● Rule 8: Become a reviewer early in your career.

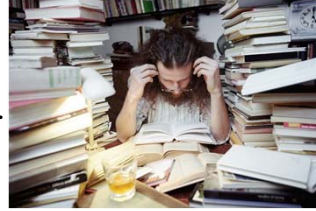
- Reviewing other papers will help you write better papers
- To start, work with your mentors:
 - ☀ Have them give you papers they are reviewing
 - ☀ Do the 1st cut at the review (most mentors will be happy to do this)
 - ☀ Then, go through the final review that is sent in by your mentor
 - ☀ Where allowed, look at the reviews other reviewers have written



Bourne Rule 8 (cont.)

● Rule 8: Become a reviewer early in your career

- This will provide an important perspective on the quality of your reviews
- Hopefully allow you to see your own work in a more *objective* way
- You will also come to understand
 - ☀ The review process
 - ☀ Quality of reviews
 - ☀ This is an important ingredient in deciding where to send your paper



Bourne Rule 9

● Rule 9: Decide early on where to try to publish your paper

- This will define the paper's:
 - ☀ Format/structure
 - ☀ Level of detail
 - ☀ Assumed novelty of the work you are doing
- Even before the paper is written:
 - ☀ Get a sense of the novelty of the work
 - ☀ Determine whether a specific journal will be interested

Bourne Rule 10

● Rule 10: Quality is everything

- It is better to publish one paper in a quality journal than multiple papers in lesser journals
- Increasingly, it is harder to hide the impact of your papers
- Tools like *Google Scholar*, *Google Scholar - My Citations*, and the *ISI Web of Science* are being used by tenure committees and employers to define metrics for the quality of your work



Bourne Rule 10 (cont.)

● Rule 10: Quality is everything

- It used to be that just the journal name was used as a metric
- In the digital world, everyone knows if a paper has little impact
- Try to publish in journals that have high impact factors; chances are your paper will have high impact, too, if accepted

Forney Rule 1

- Your Job is to make your paper *easy to understand*
- Readers will not read your paper if your paper is difficult to understand



Eschew Obfuscation: Advice on Writing Clearly, by L.J. Forney & T. Hartzell, University of Idaho (presented at the 2008 & 2009 Idaho INBRE Conference)

Forney Rule 2

- Be kind to your reader!



Forney Rule 3

● Lead the reader by the hand



- Write clearly
- Don't ignore the obvious
- The best papers are those in which complex ideas are expressed in a way that those who are less immersed in the field can understand

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Forney Writing Hints

● Writing Hints

- Tell them what you're going to tell them
- Readers love *topic sentences*
 - ☀ What is a *topic sentence*?
- Use simple declarative sentences - they are beautiful
- No need to write fancy stuff

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References for this overview:

- [1] Philip E. Bourne, *Ten Simple Rules for Getting Published*, PLOS Computational Biology, 1 (5): e57, October 2005, 341-342
- [2] *Eschew Obfuscation: Advice on Writing Clearly*, Larry J. Forney, Dept. of Biological Sciences, Professor Trish Hartzell, PhD. Department of Microbiology, Molecular Biology, and Biochemistry, University of Idaho, Moscow, ID; presented at the 2008 INBRE Conference, Boise, ID