A Personal View of Scientific Writing
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Writing is important

• Excellence is crucial: your writing is the main basis for your standing in the field
• As or more difficult than the rest of the scientific process
• Essential to full mastery of a topic (for me!)
Key Characteristics of a Good Paper

• Need logical consistency
• Need to synthesize
• Need a “story”
Consistency

• “Each statement should have the value true” (P. Smolarkiewicz)
• Internal: results and conclusions must be consistent
• External: consistent with previous results
• Obvious questions must be addressed
Synthesis

• Articles are different than lab notebooks
• It is your job, not the readers’, to decide what is important
• Some results are better condensed or omitted
The Story

• Need a clear purpose or goal for the article: Where is this going?
• Complex arguments/experiments require a narrative framework for explanation
  – “this leads to that, which leads to ..., and finally leads to the conclusion”
Final Thoughts

- Substantial revisions are almost always necessary
- English is important, but less so than the rest