Day 2: Working with research journals

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Overview

Topics we'll discuss today:
- Finding the right journal.
- Preparing your paper for that journal.
- Writing the paper.
- Graphics (figures).
- Peer review.
- Responding to reviewers.

Notes: In the previous lecture, I discussed the key sections of a journal paper and some of the things I have learned after 25 years of working as an editor. Today, I will continue by explaining some additional tricks that will make it easier for you to work with English research journals. In summary, these tips will help you understand how to find a journal that is likely to publish your paper, how to prepare your paper according to the specifications required by the journal, how to write your paper efficiently, how to deal with graphics (figures), and some important advice for working successfully with journal editors and peer reviewers.

Find the right journal

The right journal for your paper:
- Has published papers similar to your paper.
- Includes one or more papers that you cite in your paper. (If not, you may have chosen the wrong journal.)
- Ask your colleagues for suggestions and warnings.
- Will be good for your career: try to publish where researchers from around the world will read your research. (Good for guanxi).
- Has a high impact factor (http://en.wikipedia.org/wiki/Journal_impact_factor): good for your mianzi, and respected by your colleagues.
- Unless your research is exceptional, avoid journals with high rejection rates (e.g., *Nature*, *Science*). This is often stated on their Web site.

Notes: The first step in finding a journal is to find one whose subject area is similar to the subject area of your research. If the subject of your research is not something the journal is interested in, they will not publish it even if the research and the writing are both of high quality. If you want to publish your paper in a specific journal, but none of the papers that you cite in your review of the research literature comes from the journal, this is often a clue that you need to choose another journal. (Journal editors also like to see evidence that you have read their journal, and citing one of their journal's papers provides proof.) This is not a 100% rule; it is only evidence that will help you decide. Your teachers and your colleagues are a good source of advice if they have already published papers in English journals: they can tell you which journals are most friendly to Chinese researchers and which ones may cause problems for you. Sometimes your colleagues

may have guanxi that will help you to contact an editor. This is not required when you contact an English journal, but as is the case in China, it can sometimes make things easier. When you look for a journal, your goal should be to find a journal that will be good for your career. Such journals are ones that are read by many researchers from around the world who also work in your field. This can create good *guanxi* as well as friendships and very useful cooperation in the future. It is also important to look for journals with a good reputation, since this is good for your *mianzi*, for your career (better pay, more seniority, more funding), and for the respect of your colleagues. The "impact factor" is one way that journals are judged, and although there are many problems with this index of a journal's importance, it is a useful criterion. Unfortunately, the most prestigious journals (such as *Nature* and *Science*) also have the highest rejection rates: it is very difficult to publish in these journals, even if your research and writing are of high quality. Unless your research is truly exceptional, you may find it a more efficient use of your time to publish in less famous journals that still have a good reputation. Journals with unusually high rejection rates will often indicate this on their Web site, in the guidelines to authors.

Preparing your paper for a journal

To prepare your paper for a journal:
- Read and follow the author guidelines on the journal's Web site.
- If the guidelines are not clear, read papers in a current issue and follow the approach their authors used.
- Before you publish your paper in a Chinese journal, obtain permission from the English editor: some will not accept this, but others recognize that important Chinese papers should be made available to an English audience.

Notes: Preparing your paper for a journal can take a long time. In addition to all the difficult problems of analyzing your data and deciding how to write about it, each journal has slightly different requirements. The best way to learn these requirements is to look for the author guidelines on the journal's Web site. You should follow all these instructions as carefully as possible, because your paper may be rejected without being reviewed if your paper differs from the guidelines. Unfortunately, the guidelines are often not clear. In that case, find a current issue of the journal (no more than 1 year old) and follow the same approach that authors have used in one or more papers in that issue. Note that in English publishing, it is not acceptable to publish the same paper in two places. If you want to publish your paper first in a Chinese journal, ask the editor of the English journal if this is acceptable to them. Some will not permit this, but others will accept this because they realize that the Chinese version of your paper will not be available to most readers outside of China. It is often possible to publish your paper in Chinese journals <u>after</u> you have published it in English, because Chinese journals have different criteria for publishing. But again, this will depend on the journal, so you should ask the editor about their policy.

Preparing your paper for a journal

Prepare a simple word processor file:
- General rule: Do not perform complex formatting. The journal will do this for you.
- Typing: only use 12-point Times New Roman. If this is too large on your screen, use

the "Zoom" tool (under the View menu) to change the magnification.
- Use a smaller font only for large tables and graphics (figures).
- Never use Chinese fonts: they are not available to English reviewers.
- Use the Windows Character Map utility or the list of keyboard shortcuts on my site (http://www.geoff-hart.com/resources/accents-windows.pdf) to insert special symbols.
- Set the line spacing to double-spaced for all parts of the manuscript.
- Add line numbers and page numbers.
- Turn off the "document grid" that is used for Chinese characters.

Notes: Most journals now use sophisticated software that will prepare your manuscript for publication. This software will remove all of the formatting you have applied and replace it with the formatting that is used by the journal's publishing software. Thus, you should spend as little time as possible formatting your paper: that time is wasted because all your work will be undone by the software. As a result, keep your formatting as simple as possible. The best font (typeface) to use is Times New Roman, set to 12 points in size. If you find that this is too large for comfortable reading on your computer's screen, open the View menu, select Zoom, and change the magnification settings. This font is acceptable to any journal, and all journal editors and reviewers in the world will have this font on their computer. The only time you should use a smaller font is when you must fit a large table onto a printed page, or in figures. If you must type any special characters, use the Character Map utility provided by Microsoft Windows; I have also created a reference sheet that lists common special characters used by scientists that you can download from my Web site. Using Times New Roman and these two tools for symbols will ensure that anyone can read your paper and see all the special symbols you type. Whenever possible, avoid using Chinese fonts; these are often not available to English reviewers, and they can cause printing and screen display problems. To prepare your paper for review, set the line spacing to double-spaced for all parts of the manuscript. Add line numbers and page numbers to every page, since this helps reviewers to tell you which part of the manuscript their comments describe. In addition, turn off the "document grid" feature (in the Page Setup dialog box) that is used to align Chinese and other Asian fonts on the screen. This can cause serious display problems for English reviewers.

Preparing your paper for a journal

English formatting is more complex than Chinese formatting:
- Add spaces between words.
- Add spaces *before* units of measurement and before brackets: ( ), [ ], or { }.
- Add spaces *after* punctuation (never before punctuation).

Notes: This should be fairly straightforward to explain, but again, if you find anything that you think will not be clear to the students, please tell me so I can fix the problem.

Writing your paper

To write your paper efficiently:
- Perform your analysis and create your outline in Chinese first. This is faster than starting the work in your second language (English).
- Wait at least 1 day (2 days is better) before you revise this information.

- Even when you are eager to publish, always revise your plans at least once.
- Ask your colleagues to review your plan. (Guanxi = help each other; mianzi = avoid embarrassment.)

Notes: Unless you have a large amount of experience writing in English, you may find it easier to perform your analysis and develop your outline first in Chinese, since you are then working in a language you are very comfortable using. Once you have written your first draft of this information, try to wait at least 1 day (2 days is better) before you try to revise your plans. One fundamental aspect of human psychology is that allowing time to pass will let your subconscious mind think about the paper and find ways to understand it better. When you return to the plan, you will see many problems (and solutions to many problems) that you did not see the first time. Even when you are eager to publish your research results, you should always plan your schedule so that you have time to revise your plan at least once. This seems obvious, but sometimes the pressure from your teacher or your colleagues to publish becomes very strong, and some authors choose not to revise their plan. Ask your colleagues to help you revise your paper: guanxi means that you will help each other to protect your mianzi by solving problems before they can embarrass you in front of reviewers.

Writing your paper

Once your plan is satisfactory:
- Translate your plan into English, then begin writing.
- Ask another colleague to read your paper. If they cannot understand, the journal and its reviewers will not understand.
- Instead of typing references (literature citations), copy and paste them from trustworthy databases:
  – the journal's Web site
  – Ingenta (http://www.ingentaconnect.com/)
  – Science Direct (http://www.sciencedirect.com/)
- Format the references correctly or your paper may be rejected: format the author names first, then the years, then the titles, then the journal names.
- Use reference-manager software such as EndNote (http://www.endnote.com/) to make this easier.

Notes: When you have reviewed your plan in Chinese, it will be of satisfactory quality to you and your colleagues. Now you can translate the plan into English and begin writing. Even if your English is very good, you should ask one or more of your colleagues to read it and point out anything that is unclear. If your colleagues cannot understand what you have written, the English journal editor and reviewers will also have difficulty understanding what you have written, and they may reject your paper without performing a peer review. Literature citations are a serious problem, for many reasons, including unfamiliarity with the English language. The simplest solution is to copy and paste (using these software features, which are usually under the Edit menu of most software) the references from a reliable source. The Web site of the journal that published a paper is usually a good source, but there are many other reliable databases, including the Ingenta and Science Direct services. You will still have to format the references according to the journal's specifications, but at least there will be no typing errors. Formatting is

important, because journals do not have large editorial staffs, and they do not want to work very hard to apply the correct formats; if too much work is required, they may reject your paper. Formatting is very time-consuming, but necessary. The best way to do this task is to concentrate on one aspect of each reference at a time. For example, format only the author names for all references, then start over at the beginning and format the years, then start over and format the titles, and so on. If you cite many references in each of your papers, you may find it easier if you purchase special software for managing and formatting references; EndNote is one of the most popular programs for this purpose.

Graphics (figures)

To create acceptable graphics:
- Don't use Microsoft Word or Powerpoint: use CorelDraw, Adobe Illustrator, or other software designed to create graphics.
- The journal's author guidelines specify the minimum type size, line thickness, colors and fill patterns, and file format.
- Submit graphics at the final size: large enough to fit within 1 or 2 columns of the page.
- Always print a copy to ensure that it is readable at the size you used and that no symbols print incorrectly.

Notes: Graphics are difficult to create, and cause many problems during the journal's review process. To create graphics that are acceptable to a journal, start by using the correct software. Microsoft Word or Powerpoint are generally not accepted because they create nonstandard graphics formats. Instead, use specialized graphics software such as CorelDraw and Adobe Illustrator, or other software specifically designed to create graphics. The journal's author guidelines will provide specifications for the minimum type size, line thickness, colors and fill patterns, and file format. They will also specify the size of the columns of words that appear in the printed journal. To avoid problems with graphics quality that occur when a graphic must be reduced or enlarged to fit within the available space, always send your graphics to the journal at their final size; this usually means that the graphic will fit perfectly in 1 or 2 columns. To ensure that the graphic will have acceptable quality, always print a copy. If it is difficult to read, or if any symbols print incorrectly, solve the problem before you send your paper to the journal.

Graphics (figures)

To create acceptable graphics:
- Use the same axis scales for graphs that present values for the same parameter. (Authors often misinterpret their own data when the scales differ; readers definitely do.)
- Define symbols and colors in a key instead of describing them in the figure caption.
- Use the Windows Character Map utility or my PDF file to insert correct symbols.
- Color printing is very expensive. Use black, white and grey graphics, and present color material only on the journal's Web site.

Notes: Use the same y-axis and x-axis scales for all graphs that present values for the same parameter. When the scales differ, particularly when two graphs are side by side, it is very easy to fail to see that the scales are different. At least 2 or 3 times per year, I edit

a paper in which the authors misinterpreted their own data because they forgot that the scales were different. If authors make this kind of mistake, you can be certain that readers will also make these mistakes. When you define the symbols and color patterns that are used in a graphic, always present this information in a "key" (sometimes called a "legend") that is inside the graphic. If you define this information in the figure caption, it is more difficult for readers to understand, and can lead to serious problems when the word processor file is processed by the journal's automated publishing software. To insert special characters or symbols, use the Windows Character Map utility or the PDF file on my Web site (see the previous slide about typing your manuscript). Color printing is very expensive, and publishers often use this cost as a way to pay the cost of publishing their journal. In most cases, you can use combinations of black, white, and grey to present your information, and this will save you hundreds of U.S. dollars in publication costs. If color graphics are necessary to communicate your results, you can almost always present the color graphics as "online supplemental material" on the journal's Web site. There is usually no cost to do this.

Peer review

Peer review has two main goals:
- First: quality control (to avoid publishing bad research results and faulty conclusions).
- Second: to protect your reputation by eliminating errors and helping you to produce the best paper you can write (*mianzi*).

Notes: Before any paper can be published, it must undergo peer review. This is a process in which your colleagues (other researchers) rigorously evaluate and criticize your paper to ensure that the quality of your research and logic is high. The goal is to prevent bad research results and faulty conclusions from entering the literature, since they can subsequently mislead future researchers into wasting time and money. A second goal to protect your reputation by eliminating errors and helping you to produce the best paper you can write (*mianzi*).

Peer review

Things to expect from peer review:
- At least one revision will be required, and often two or three revisions.
- You may need to do more research to provide additional data. Sometimes you can cite other published studies instead of your own data.
- Contradictory reviews: different reviewers will have different criticisms.
Human biases also affect the peer review process:
- Some reviewers reject theories that differ from their personal theories.
- Competition for funding or for reputation (publishing a finding before anyone else) may lead to unusually critical reviews.
- There is some prejudice against Chinese authors; this may be automatic, when they see your mailing address.

Notes: Review by a journal is a difficult and time-consuming process. You can expect certain things to happen every time you send your paper to a journal, or at least many times. First, papers are almost never accepted in their original form. Most papers require at least one major revision, and sometimes it will take two or three revisions before your

paper is accepted. Reviewers will sometimes ask you to do more research to provide additional data to support your conclusions or compensate for weak parts of your experimental design. Sometimes, if you are lucky, this will not be necessary because you can cite other published studies instead of obtaining your own data. The most serious problem is that humans are unpredictable, and not always as logical as you would expect from scientists. Contradictory reviews are common, and you will often find that different reviewers have extremely different criticisms of your paper; sometimes one reviewer will accept your paper with only minor changes and another reviewer will reject it or require major changes. You must also be aware that researchers have their personal biases: some reviewers may reject your theories if those theories differ from their personal theories. In one case, I experienced a situation in which competition for funding or for reputation (the right to publish a research finding first) led to a severely critical review that was not justified. The last thing to be aware of is that you should expect occasional prejudice against Chinese authors. I have seen a journal editor reject a paper that I edited and send it back for language editing just because they saw a Chinese mailing address at the top of the paper. There is little that you can do about this other than ask for assistance from an English editor or an English colleague who is willing to help you with your English.

Responding to review comments

Chinese understand <u>mianzi</u> and Westerners do not. Thus, they may seem rude and critical. When you reply:
* Never attack or embarrass reviewers, even if you believe they are wrong or are prejudiced against you.
* Reviewers always have the final decision, so you must persuade them you are right.
* Journal editors rarely settle disputes between authors and reviewers (they worry that a reviewer will not work for them again).
* Always accept comments that don't affect you greatly (e.g., cite a paper that the reviewer recommended, use the reviewer's suggested wording).
* Find ways to accept comments you disagree with slightly (e.g., report the reviewer's interpretation as a viable alternative, then say "further research required to determine which interpretation is correct").

Notes: Chinese understand *mianzi* and Westerners do not. As a result, Western reviewers often seem very rude and critical to Chinese authors. When you reply to their criticisms, it is natural to be angry or offended, but you should resist the temptation to respond equally rudely. Never attack or embarrass reviewers, even if you believe they are wrong or are prejudiced against you. Reviewers always have the final decision, and if you anger or frustrate them, they can easily reject your paper. Instead, you must persuade them that you are right. Journal editors will rarely risk offending a reviewer by trying to settle disputes between you and the reviewer. There are many reasons for this, but one of the most important ones is that they worry a reviewer will not work for them again if the reviewer's advice is ignored. One way to satisfy reviewers is to always accept comments that don't affect you greatly, even if this requires you to do some work. For example, always cite any paper that the reviewer asked you to cite, and use the reviewer's suggested wording if it seems to be acceptable, even if you would prefer to say something differently. Always look for ways to accept comments that you disagree with only slightly. There are several ways to accomplish this. For example, you can report the

reviewer's interpretation as a viable alternative, even if it contradicts your beliefs, and add words such as "further research is required to determine which interpretation is correct".

Responding to review comments

To conclude your response letter to the reviewers:
- Thank the reviewers for helping to improve your work: only at the end of your responses, not after each comment.
- State that you hope the paper is now acceptable, but that you will be happy to continue working with them to solve any remaining problems.
- If you're certain that you are right and one or more reviewers won't accept your logic, find a different journal. One journal may quickly accept a paper that another journal rejects.

Notes: Deciding how to conclude your response letter to the reviewers can be difficult, but there are some simple steps that you should consider. First, thank the reviewers for helping to improve your work, but only do this at the end of your responses, not after each comment. If you say "thank you" too often, reviewers may think you are not being sincere. ("Sarcasm" is very common in the West, but uncommon in China.) State that you hope your revised paper will now be acceptable, but emphasize that you will be happy to continue working with the reviewers to solve any remaining problems. Lastly, if you are certain that you are right and one or more reviewers is wrong, but they won't accept your logic for why you are right, there is not much you can do about this. Find a different journal to review your paper. I have found that a second journal often quickly accepts a paper that the first journal rejected.