

## Aphorisms on Writing– G492 abridgement

April 22, 2010

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### *Abstract*

This article collects aphorisms on writing excerpted from my article in *Readings in Games and Information*, ed. Eric Rasmusen, Blackwell Publishers, 2001.

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### Asserting and Stating

Avoid “to assert” and “to state”. In over 95 percent of student papers in which they are used, they are misused. The word “to say” is fine old Anglo-Saxon and closer to what is meant.

### And

Here are words with similar meaning: *Furthermore, besides, next, moreover, in addition, again, also, similarly, too, finally, second, last.*

### Therefore

Here are words with similar meaning: *Thus, then, in conclusion, consequently, as a result, accordingly, finally, the bottom line is.*

### But

Here are words with similar meaning: *Or, nor, yet, still, however, nevertheless, to the contrary, on the contrary, on the other hand, conversely, although, though, nonetheless.*<sup>1</sup>

Duangkamol Chartpraser found in experiments that college students rated an author higher in expertise if he wrote badly, and rated him higher the longer they had been in college, even though they also said they liked simpler writing better.<sup>2</sup> “Such labour’d nothings, in so strange a style, Amaze th’ unlearn’d, and make the learned smile.”<sup>3</sup>

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<sup>1</sup>This list is based on p. 62 of Mary Munter’s 1992 book.

<sup>2</sup>Duangkamol Chartpraser “How Bureaucratic Writing Style Affects Source Credibility,” *Journalism Quarterly*, 70: 150-159 (Spring 1993). The article itself is rather poorly written.

<sup>3</sup>Alexander Pope, “Essay on Criticism,” Part II, line 126 (1711).

You must decide who you want to impress, the learned or the unlearned. On this rests whether you should use “impact” as a verb.

#### 4.6 Acronyms.

Do not say “The supra-national government authority (SNGA) will...” and then use SNGA throughout your paper. Say “The supra-national government authority (“the Authority”) will...” The use of acronyms is a vice akin to requiring the reader to learn a foreign language. The reader will not bother to learn foreign terms just to read a paper as insignificant as yours. If the term’s length makes using it throughout your paper awkward, the problem is the term, not the number of letters used to represent it. Let the author be warned: when he finds his writing is awkward, that is often a sign his thinking is muddy. Political scientists, take note!

#### 5.1 Starting

To overcome writer’s block, put together an outline in any order of the points you want to make. Then order them. Start writing without worrying about style, and later revise heavily or start over. Starting twice today is better than waiting three months and starting once. It is better, *a fortiori*, than waiting forever.<sup>4</sup>

Pascal said, “The last thing one knows when writing a book is what to put first.”<sup>5</sup> Don’t write your introduction first. Write it last. Setting it into the context of the literature, motivating the idea, and so forth are for your reader, not for you. Do, however, at some early stage write up the part of your paper which intuitively explains your idea.

#### 5.2 Numbering

Number each page of text so the reader can comment on particular pages. Number each equation in drafts on which you want comments. If you have appropriate software, label each line.

#### 5.3 Title Pages

The title page should always have (1) the date, (2) your address, (3) your phone number, and (4) your e-mail address. You might as well put your fax number and web address down too, if you have them. The date should be the exact date, so that if someone offers you comments, you know what he mean when he says, “On page 5, line 4, you should say...”. Save copies of your old drafts for this same reason.

#### 5.4 Abstracts

A paper over five pages long should include a summary in no more than half of one page. Depending on your audience, call this an abstract or an executive summary. In general, write your paper so that someone can decide within three minutes whether he wants to read it. Usually, you do not get the benefit of the doubt.

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<sup>4</sup>Depending, of course, on the substance of your paper.

<sup>5</sup>Blaise Pascal, *Pensees*, translated by W.Trotter, [www.orst.edu/instruct/ph1302/tests/pascal](http://www.orst.edu/instruct/ph1302/tests/pascal), I-19, (1660/August 18, 1999).

## 5.5 Sectioning

It is often useful to divide the paper into short sections using boldface headings, especially if you have trouble making the structure clear to the reader.

### 5.10 Headings

Headings should have what Munter calls “stand-alone sense.”<sup>6</sup> Make all headings skimmable. The reader should get some information from each of them. Instead of “Extensions”, try “Extensions: Incomplete Information, Three Players, and Risk Aversion.”

### 5.11 The Conclusion

Do not introduce new facts or ideas in your concluding section. Instead, summarize your findings or suggest future research.

## 6.1 Footnotes

Scholarly references to ideas can be in parenthetical form, like (Rasmusen [1988]), instead of in footnotes.<sup>7</sup> Footnotes are suitable for tangential comments, citation of specific facts (e.g., the ratio of inventories to final sales is 2.6), or explanations of technical terms (e.g., Dutch auction).<sup>8</sup> Notes should be footnotes, not endnotes.<sup>9</sup> Every statistic, fact, and quotation that is not common knowledge should be referenced somehow. In deciding whether something is common knowledge, ask, “Would any reader be skeptical of this, and would he know immediately where to look to check it?” Economists are sloppy in this respect, so do not take existing practice as a model.

Try not to have footnote numbers<sup>10</sup> in the middle of a sentence. If a sentence requires two footnotes, as when you say that the populations of Slobovia and Ruritania are 2 million and 24 million, just use one footnote for the two facts. You may even wait until the end of the paragraph if you think the reader will still know which facts are being footnoted.<sup>11</sup>

Footnotes have a quite different purpose in drafts, where they can be used for comments to oneself or to co-authors. I put comments to myself as footnotes starting with xxx, like this.<sup>12</sup> I am eccentric, but this helps me not to forget to add things later at the appropriate places.

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<sup>6</sup>Munter (1992), p.52)

<sup>7</sup>Like this: Rasmusen, Eric (1988) “Stock Banks and Mutual Banks.” *Journal of Law and Economics*. October 1988, 31: 395-422.

<sup>8</sup>Like this tangential comment. Inventory ratio: 2.62 for 1992-III, *Economic Report of the President, 1993*, Washington: USGPO, 1993. In a Dutch auction, the price begins at a high level and descends gradually until some buyer agrees to buy.

<sup>9</sup>If this were an endnote, I am sure you would not read it.

<sup>10</sup>Like this one. A distraction, wasn't it? Go back up the page again and continue reading.

<sup>11</sup>The Slobovia population figure is from the 1999 *Statistical Abstract of Slobovia*, Boston: Smith Publishing. The Ruritania figure is for 1994, and is from the 1998 *Fun Facts From Fiction*, Bloomington, Indiana: Jones and Sons. In this case, I probably ought to have put the footnote at the end of the sentence containing the populations rather than waiting till the end of the paragraph. I should not, however, have two footnotes interrupting that sentence.

<sup>12</sup>xxx This is just a footnote to myself. Thus, I don't bother to get the ypos out.

## 6.2 Cites to Books

References to books should usually be specific about which part of the book is relevant. Give the chapter or page number.<sup>13</sup> Note that I give 1776 as the year of Smith's work, rather than 1952, as the back of the title page of my copy says. The year could tell the reader one of two things: 1. the year the idea was published, or 2. what edition you looked at when you wrote the paper. Usually (1) is much more interesting, but you should also have (2) in the references at the end of the paper so the page numbers are meaningful.

## 6.3 Citation Format

How to cite old books is a problem. I like the format of: Smith, Adam (1776/1976) *An Inquiry into The Nature and Causes of the Wealth of Nations*. Chicago: University of Chicago Press, 1976. This does not seem quite right for Aristotle, but for moderns like Smith it combines the two functions of saying when the idea originated and how the reader can get a copy with the cited page numbering.

There seems to be consensus in the journals that the reference list should cite Author, Year, Volume, Pages, Journal (or City and Publisher, for a book), and Title. Some journals like to have the month of publication, a good idea because it helps readers find the issue on their bookshelf. Legal style is to list only the first page, not the first and last pages, a bad idea because readers like to know how long the article is.<sup>14</sup>

If you have the author's first name, put it in the citation rather than just using his initial. If, however, he customarily uses a different name, use the name by which he is known. Thus, you should not write "J. Ramseyer," or "M. Ramseyer," or "John Ramseyer," but "J. Mark Ramseyer," for the Japan scholar who goes by the name "Mark".

## 5.4 Quotations

Long quotations should be indented and single-spaced. Any quotation should have a reference attached as a footnote, and this reference should include the page number, whether it is to an article or a book.

When should you use quotations? The main uses are (a) to show that someone said something, as an authority or an illustration; and (b) because someone used especially nice phrasing. Do not use quotations unless the exact words are important. If they are and you do quote, give, if you have it, the exact page or section.

## 7 Tables, Figures, and Numbers

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<sup>13</sup>Example: "Adam Smith suggests that sales taxes were preferred to income taxes for administrative convenience (Smith [1776], p. 383)." Or, "(Smith [1776], 5-2-4)." If you really wish to cite the entire book, then that is okay too: "Smith (1776) combined many ideas from earlier economists in his classic book."

<sup>14</sup>One good style is: Davis, John (1940) "The Argument of an Appeal," *American Bar Association Journal* (December 1940) 26: 895-899.

### 7.1 Highlighting Numbers in Tables

Circle, box, boldface, or underline the important entries in tables. Often you will wish to present the reader with a table of 100 numbers and then focus on 2 of them. Help the reader find those two. Table 1 and 2 show ways to do this.

The title of Table 2 illustrates an exception to three rules of good writing: (1) Use short words instead of long words, (2) Use Anglo-Saxon roots instead of Greek or Latin, and (3) Use unambiguous words rather than words with more than one meaning. I had to decide whether to use “illegitimacy”, a long Latinate word with many meanings, or “bastardy” a shorter Anglo-Saxon word with only one meaning. I avoided “bastardy” because it is somewhat archaic and the word “bastard” is most commonly used in slang, so that the reader would be distracted from my subject if I followed the three rules above. But I thought carefully before breaking the rules!

**Table 1**  
**Arrest Rates per 100,000 Population**

	Under 18	18-20	21-24	25-29	30-34	35-39	40-44	45-49	50+	All ages
1961	1,586	8,183	<u>8,167</u>	6,859	6,473	<u>6,321</u>	5,921	5,384	2,594	3,877
1966	2,485	8,614	<u>7,425</u>	6,057	5,689	<u>5,413</u>	5,161	4,850	2,298	3,908
1971	3,609	11,979	<u>9,664</u>	6,980	6,016	5,759	5,271	4,546	2,011	4,717
1976	3,930	13,057	<u>10,446</u>	7,180	5,656	5,205	4,621	3,824	1,515	4,804
1981	3,631	15,069	<u>11,949</u>	8,663	6,163	5,006	4,176	3,380	1,253	5,033
1985	3,335	15,049	<u>13,054</u>	9,847	7,181	<u>5,313</u>	4,103	3,155	1,088	5,113

*Note:* Over 50% of arrests are for “public order” offenses (e.g. drunk driving, prostitution), especially for older people. The underlined entries are mentioned in the text.

*Source:* BJS (1988c), pp. 26-27.

## 7.2 Summary Statistics

If you do not have hundreds of observations, you should consider showing your reader all of your data, as I did in Table 2. Note that I gave the reader the regression residuals by observation, which reveals outliers that might be driving my results. It is not enough just to show which observations are outliers in the variables— D.C. is an outlier in both the dependent and explanatory variables, but it isn’t one in the residual. Regardless of the number of observations, give the reader the summary statistics, as in Table 3.

**Table 3: A Summary Table of Illegitimacy Data by State**

Variable	Minimum	Mean Across States	Mean (U.S.)	Median	Maximum
Illegitimacy (%)	11.1	23.4	24.5	22	59.7
AFDC (\$/month)	39	112	124	109	226
Income (\$/year)	9,612	13,440	14,107	13,017	19,096
Urbanization (%)	20.0	64.5	77.1	67.1	100
Black (%)	0.2	10.8	12.4	6.9	68.6
Dukakis vote (%)	33.8	46.0	46.6	44.7	82.6

N = 51. The District of Columbia is included. The U.S. mean is the value for the U.S. as a whole, as opposed to the equal-weighted mean of the 51 observations. Sources and definitions are in footnotes 23 and 25.

I did not put the standard deviations in Table 3 even though we usually think of them as the most important feature of a variable after the mean. If a variable has a normal distribution, listing the mean and the variance (or, equivalently, the mean

and the standard deviation) makes sense because they are sufficient statistics for the distribution— knowing them, you know the exact shape of it. If the variable does not have a normal distribution, though, it may not be very useful to know the standard deviation, and such is the case in the data above. If the data might be highly skewed, the median may be useful to know, and if the data is bounded, the minimum and maximum are useful. If the data points are well known, such as states, countries, or years, it may be useful to give the reader that information too. I could have put the states in parentheses in Table 3, like this:

Illegitimacy (%) | 11.1 (Utah) 23.4 24.5 22 59.7 (D.C.) |

### 7.3 Correlation Matrices

Correlation matrices should be used more often than they are. You will want to look at them yourself while doing your multiple regressions in order to see how the variables are interacting.

**Table 4: A Correlation Matrix of the Variables**

	Illegit -imacy	AFDC	Income	Urban- ization	Black	South	Dukakis vote
Illegitimacy	1.00						
AFDC	-.25	1.00					
Income	.18	-.36	1.00				
Urbanization	.24	-.09	.09	1.00			
Black	.76	-.17	.00	.14	1.00		
South	.48	-.17	-.28	-.05	.66	1.00	
Dukakis vote	.18	-.06	.06	.17	.03	.07	1.00

N = 51. The District of Columbia is included. Sources and definitions are in footnotes 23 and 25.

### 7.4 Normalizing Data

In empirical work, normalize your variables so the coefficients are easy to read. A set of ratios (.89, .72, .12) can be converted to percentages, (89, 72, 12). Incomes can be converted from (12,000, 14, 000, 78,100) to (12, 14, 78.1), making the units “thousands of dollars per year” instead of “dollars per year” and making the coefficient on that variable .54 instead of .0054. Z-scores, the variables minus their means divided by their standard deviations, may be appropriate for numbers without meaningful natural units, such as IQ scores or job satisfaction.

If you do decide to write a full number such as “12, 345,” it helps to put the comma in to separate out thousands. Leave out meaningless decimal places. 15,260 is better than 15260.0. In fact, if you are talking about incomes, there is a case to

be made for using 15 instead, and measuring in thousands of dollars. That discards information, to be sure, but the number is simpler to work with, and if the data measurement error has, say, a standard deviation of 3,000, the loss in information is small.

Note that I said “data measurement error,” not “the size of the disturbances”. We often forget that there is measurement error in the data even before we start doing regressions with it and adding disturbances to represent specification error, omitted variables, and so forth. Remember the story of the man who was asked how old a certain river was and said “That river is 3,000,021 years old.” When asked how he knew that precise number, he said, “Well, I read in a book that it was 3 million years old, and the book is 21 years old.”<sup>15</sup>

### 7.5 Variable Names.]

There is no need to use peculiar code names for variables. “Density” is a much better name than the unpronounceable and mysterious “POPSQMI.”

### 7.6 Table Location.

Always refer to tables in the text. Otherwise, the table is like a paragraph that has no link to the paragraphs before and after it. Put tables and figures in the text, not at the end of the paper. Journals often ask authors to put tables and figures at the end for ease in processing manuscripts but don’t do it till the paper is accepted. The common practice of putting them at the end in working papers is a good example of the author being lazy at the expense of his readers.

### 7.7 Table Titles

Give useful titles to every table and every diagram. Do not label a table as “Table 3.” Say, “Table 3: Growth in Output Relative to Government Expenditure.” (When you refer to the table in the text, though, you can just refer to “Table 3,” since it will be apparent from the context what the table is about.) Also don’t title a table “Regression Results” or “Summary Statistics.” Those are useless names– anybody can look at a table and tell it is regression results or summary statistics. “Executive Pay Regressions” and “Executive Pay Summary Statistics” are better names.

### 7.8 Diagram Axes.

In diagrams, use words to label the axes, not just symbols. Say: “X, the education level,” not just “X”.

### 8.1 Backups

Xerox your paper before you give it to anyone, or, better yet, retain two copies on disk, in separate locations for fear of fire.

### 8.2 Computers

For each paper, have a separate directory with a short name– fore example, STIGMA. Then have the following subdirectories: Literature, Comments, Letters, Old, Figures,

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<sup>15</sup>The story is from Chapter 3, “Specious Accuracy,” pp. 62-69 of Oskar Morgenstern, *On the Accuracy of Economic Observations*, 2nd edition, Princeton, Princeton University Press (1963) (1st edition, 1950.) Note the precedent of a theorist criticizing econometrics– and considering it important.



\_Old.Drafts. Also create a file called AaChronology.stigma that has the dates different things happen—you begin, you circulate a draft, you send to a journal, etc. Each time you present the paper or submit it, create a new subdirectory, e.g., \_JPE, \_ALEA.97. The subdirectories should all start with “\_” so that they are together, not mixed in with the various uncategorized or active files in the main directory.

## 11 References on Writing

Any scholar who uses econometrics has more than one econometrics text in his office, even though all econometrics texts cover essentially the same material. Should the same be true for scholars who use writing?<sup>16</sup> Here are some suggestions for further reading.

Basil Blackwell, *Guide for Authors*. Oxford: Basil Blackwell (1985). A fine style guide by the publishers of the present article.

Davis, John, “The Argument of an Appeal,” *American Bar Association Journal* 26: 895-899 (December 1940). Appellate argument in the 1920’s turns out to be very similar to economics seminars in the 1990’s.

Epstein, Richard, “The Struggle Between Author and Editor over Control of the Text: Faculty-Edited Law Journals,” *IIT Chicago-Kent Law Review*, 70: 87-94 (1994). Law reviews are a special kind of research outlet that more economists should learn about.

Fowler, Henry, *A Dictionary of Modern English Usage*, Second Edition. New York: Oxford University Press, 1965. This is a classic, though I find its format not as useful as other style guides. A book similar in outlook but more systematic is Ernest Gowers, *The Complete Plain Words*, London: Her Majesty’s Stationery Office, 1954.

Graves, Robert & Alan Hodge, *The Reader Over Your Shoulder*, New York: The Macmillan Company, 1944. A book chock-full of real examples with discussion of how they should have been written. Of particular interest is the over 100 pages of word-by-word criticism of eminent writers (which Liddell Hart suggested be subtitled, “A Short Cut to Unpopularity”) in which the authors go after such excellent writers as T.S. Eliot, Ernest Hemingway, John Maynard Keynes, Bertrand Russell, and George Bernard Shaw, an excellent reminder to us that no writer is so good that he can’t improve.

Harman, Eleanor, “Hints on Poofreading,” *Scholarly Publishing*, 6: 151-157 (January 1975). Not only this article, but the trade journal in which it appeared is good reading.

McCloskey, Donald, “Economical Writing,” *Economic Inquiry*, 24: 187-222 (April 1985). Every economist should read this useful and entertaining article, later expanded into book form,

Munter, Mary, *Guide to Managerial Communication*, 3rd edition, Englewood Cliffs, N. J.: Prentice-Hall (1992). This book is oriented towards business writing and presentation.

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<sup>16</sup>Maybe not. Just memorize my article and forget about my competitors.

Posner, Richard, "Goodbye to the Bluebook," *University of Chicago Law Review*, 53: 1343-1352 (Fall 1986). The Bluebook is the standard law review guide to citation style, published by the students at the top law reviews. The University of Chicago has tried to reform legal citation in the direction of clarity and simplicity.

Strunk, William & E. White, *The Elements of Style*. New York: Macmillan (1959). The classic; good writing hasn't changed. Attitudes have though, so be sure you get the third edition, not the 1999 fourth edition. In general, avoid writing guides written after 1985; in recent years, English departments have decided that the politics of feminism, race, and class warfare are more important than clarity and beauty, with predictable results for how they teach writing.

Tufte, Edward, *The Visual Display of Quantitative Information*. Cheshire, Conn.: Graphics Press (1983). A delightful book about graphs and charts, which is as good a coffee-table book as a guide to one's own writing.

Weiner, E. , *The Oxford Guide to the English Language*. Oxford: Oxford University Press (1984). Older style guides such as this are more likely to be correct, given the current popularity of political correctness and gender-neutered language among literature professors.

**Table 2: The Illegitimacy Data and the Regression Residuals**

State	Illegitimacy (%)	AFDC (\$/month)	Income (\$/year)	Urbanization (%)	Black (%)	Dukakis vote (%)	Residual Illegitimacy (%)
Maine	19.8	125	12,955	36.1	0.3	44.7	2.8
New Hampshire	14.7	140	17,049	56.3	0.6	37.6	2.3
Vermont	18.0	159	12,941	23.2	0.4	48.9	-4.9
Massachusetts	20.9	187	17,456	90.6	4.8	53.2	-6.2
Rhode Island	21.8	156	14,636	92.6	3.8	55.6	-5.2
Connecticut	23.5	166	19,096	92.6	8.2	48.0	2.3
<b>Delaware</b>	27.7	99	14,654	65.9	18.9	44.1	2.1
<b>Maryland</b>	31.5	115	16,397	92.9	26.1	48.9	-0.4
<b>DC</b>	59.7	124	17,464	100.0	68.6	82.6	0.5
<b>Virginia</b>	22.8	97	15,050	72.2	19.0	40.3	-2.1
<b>West Virginia</b>	21.1	80	10,306	36.5	2.9	52.2	2.1
<b>North Carolina</b>	24.9	92	12,259	55.4	22.1	42.0	-6.0
<b>South Carolina</b>	29.0	66	11,102	60.5	30.1	38.5	-5.0
<b>Georgia</b>	28.0	83	12,886	64.8	26.9	40.2	-3.5
<b>Florida</b>	27.5	84	14,338	90.8	14.2	39.1	5.0
<b>Kentucky</b>	20.7	72	11,081	46.1	7.5	44.5	1.4
<b>Tennessee</b>	26.3	54	12,212	67.1	16.3	42.1	5.7
<b>Alabama</b>	26.8	39	11,040	67.5	25.6	40.8	0.5
<b>Mississippi</b>	35.1	39	9,612	30.5	35.6	40.1	2.4
<b>Arkansas</b>	24.6	63	10,670	39.7	15.9	43.6	1.3
<b>Louisiana</b>	31.9	55	10,890	69.2	30.6	45.7	-1.4
<b>Oklahoma</b>	20.7	96	10,875	58.8	6.8	42.1	-4.8
<b>Texas</b>	19.0	56	12,777	81.3	11.9	44.0	0.9
Montana	19.4	120	11,264	24.2	0.2	47.9	0.5
Idaho	13.0	95	11,190	20.0	0.4	37.9	-0.6
Wyoming	15.8	117	11,667	29.2	0.8	39.5	-2.3
Colorado	18.9	109	14,110	81.7	3.9	46.9	1.3
New Mexico	29.6	82	10,752	48.9	1.7	48.1	14.0
Arizona	27.2	92	13,017	76.4	2.7	40.0	12.0
Utah	11.1	116	10,564	77.4	0.7	33.8	-14.0
Nevada	16.4	86	14,799	82.6	6.9	41.1	3.2
Washington	20.8	157	14,508	81.6	2.4	50.0	-4.8
Oregon	22.4	123	12,776	67.7	1.6	51.3	1.5
California	27.2	191	16,035	95.7	8.2	48.9	-6.8
Alaska	22.0	226	16,357	41.7	3.4	40.4	-10.0
Hawaii	21.3	134	14,374	76.3	1.8	54.3	1.1
United States	24.5	124	14,107	77.1	12.4	46.6	0.0

Extreme values are boxed. States defined as Southern are boldfaced. Some states are omitted. Residuals are from equation (34). Sources and definitions are in footnotes 23 and 25.