Aphorisms on Writing– G492 abridgement

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Abstract

This 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.*

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.

“Such labour’d nothings , in so strange a style, Amaze th’ unlearn’d, and make the learned smile.”

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!

5.3 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.

5.10 Headings

Headings should have what Munter calls "stand-alone sense." Make all headings skimmab
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 parenthetic form, like (Rasmusen [1988]), instead of in footnotes.[1] 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).[2] Notes should be footnotes, not endnotes.[3] 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.

[1]Like this: Rasmusen, Eric (1988) "Stock Banks and Mutual Banks." *Journal of Law and Economics*. October 1988, 31: 395-422.

[2]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.

[3]If this were an endnote, I am sure you would not read it.

Try not to have footnote numbers[4] 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.[5]

[4]Like this one. A distraction, wasn't it? Go back up the page again and continue reading.

[5]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.

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.[6] 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]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."

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.[7]

[7] One good style is: Davis, John (1940) "The Argument of an Appeal," *American Bar Association Journal* (December 1940) 26: 895-899.

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.

7.1 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.

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	7,425	6,057	5,689	5,413	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	10,446	7,180	5,656	5,205	4,621	3,824	1,515	4,804
1981	3,631	15,069	11,949	8,663	6,163	5,006	4,176	3,380	1,253	5,033
1985	3,335	15,049	13,054	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.

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.

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".

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	$\boxed{19{,}096}$	92.6	8.2	48.0	2.3
Delaware	27.7	99	14,654	65.9	18.9	44.1	2.1
Maryland	31.5	115	16,397	92.9	26.1	48.9	-0.4
DC	$\boxed{59.7}$	124	17,464	$\boxed{100.0}$	$\boxed{68.6}$	$\boxed{82.6}$	0.5
Virginia	22.8	97	15,050	72.2	19.0	40.3	-2.1
West Virginia	21.1	80	10,306	36.5	2.9	52.2	2.1
North Carolina	24.9	92	12,259	55.4	22.1	42.0	-6.0
South Carolina	29.0	66	11,102	60.5	30.1	38.5	-5.0
Georgia	28.0	83	12,886	64.8	26.9	40.2	-3.5
Florida	27.5	84	14,338	90.8	14.2	39.1	5.0
Kentucky	20.7	72	11,081	46.1	7.5	44.5	1.4
Tennessee	26.3	54	12,212	67.1	16.3	42.1	5.7
Alabama	26.8	$\boxed{39}$	11,040	67.5	25.6	40.8	0.5
Mississippi	35.1	$\boxed{39}$	$\boxed{9{,}612}$	30.5	35.6	40.1	2.4
Arkansas	24.6	63	10,670	39.7	15.9	43.6	1.3
Louisiana	31.9	55	10,890	69.2	30.6	45.7	-1.4
Oklahoma	20.7	96	10,875	58.8	6.8	42.1	-4.8
Texas	19.0	56	12,777	81.3	11.9	44.0	0.9
Montana	19.4	120	11,264	24.2	$\boxed{0.2}$	47.9	0.5
Idaho	13.0	95	11,190	$\boxed{20.0}$	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	$\boxed{14.0}$
Arizona	27.2	92	13,017	76.4	2.7	40.0	12.0
Utah	$\boxed{11.1}$	116	10,564	77.4	0.7	$\boxed{33.8}$	$\boxed{-14.0}$
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	$\boxed{226}$	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.