
 WRITING THE EMPIRICAL JOURNAL
 ARTICLE

From: The Complete Academic:
 A practical Guide for the
 Beginning Social Scientist

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You have conducted a study and analyzed the data. Now it is time to write. To publish. To tell the world what you have learned. The purpose of this chapter is to enhance the chances that some journal editor will let you do so.

If you are new to this enterprise, you may find it helpful to consult two additional sources of information. For detailed information on the proper format of a journal article, see the *Publication Manual of the American Psychological Association* (APA, 1983) and recent articles in the journal to which you plan to submit your manuscript. For renewing your acquaintance with the formal and stylistic elements of English prose, you can read Chapter 2 of the *Publication Manual* or any one of several style manuals. I recommend *The Elements of Style* by Strunk and White (1979). It is brief, witty, and inexpensive.

Because I write, review, and edit primarily for journals in personality and social psychology, I have drawn most of my examples from those areas. Colleagues assure me, however, that the guidelines set forth here are also pertinent for articles in experimental psychology and biopsychology. Similarly, this chapter focuses on the report of an empirical study, but the general writing suggestions apply as well to the theoretical articles, literature reviews, and methodological contributions that also appear in our journals.

PLANNING IT

Which Article Should You Write?

There are two possible articles you can write: (1) the article you planned to write when you designed your study or (2) the article that makes the

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It becomes broader:

"Not since Charles Darwin's first observations has psychology contributed as much new . . ."

And more so:

"If emotions can incarcerate us by hiding our complexity, at least their expression can liberate us by displaying our authenticity."

"This closing statement might be a bit grandiose for some journals—I'm not even sure what it means—but if your study is carefully executed and conservatively interpreted, most editors will permit you to indulge yourself a bit at the two broad ends of the hourglass. Being dull only appears to be a prerequisite for publishing in the professional journals."

The Introduction

The Opening Statements. The first task of the article is to introduce the background and nature of the problem being investigated. Here are four rules of thumb for your opening statements:

1. Write in English prose, not psychological jargon.
2. Don't plunge unprepared readers into the middle of your problem or theory. Take the time and space necessary to lead them up to the formal or theoretical statement of the problem step by step.
3. Use examples to illustrate theoretical points or to introduce unfamiliar conceptual or technical terms. The more abstract the material, the more important such examples become.
4. Whenever possible, try to open with a statement about people (or animals), not psychologists or their research. (This rule is almost always violated. Don't use journals as a model here.)

Examples of Opening Statements:

Wrong: Recently, Ekman (1972), Izard (1977), Tomkins (1980), and Zajonc (1980) have pointed to psychology's neglect of the affects and their expression. [Okay for somewhere in the introduction, but not the opening statement.]

Right: Individuals differ radically from one another in the degree to which they are willing and able to express their emotions.

Wrong: Research in the forced-compliance paradigm has focused on the effects of predecisional alternatives and incentive magnitude.

Wrong: Festinger's theory of cognitive dissonance has received a great deal of attention during the past 20 years.

Right: The individual who holds two beliefs that are inconsistent with one another may feel uncomfortable. For example, the person who knows that he or she enjoys smoking but believes it to be unhealthy may experience discomfort arising from the inconsistency or disharmony between these two thoughts or cognitions. This feeling of discomfort has been called *cognitive dissonance* by social psychologist Leon Festinger (1957), who suggests that individuals will be motivated to remove this dissonance in whatever way they can.

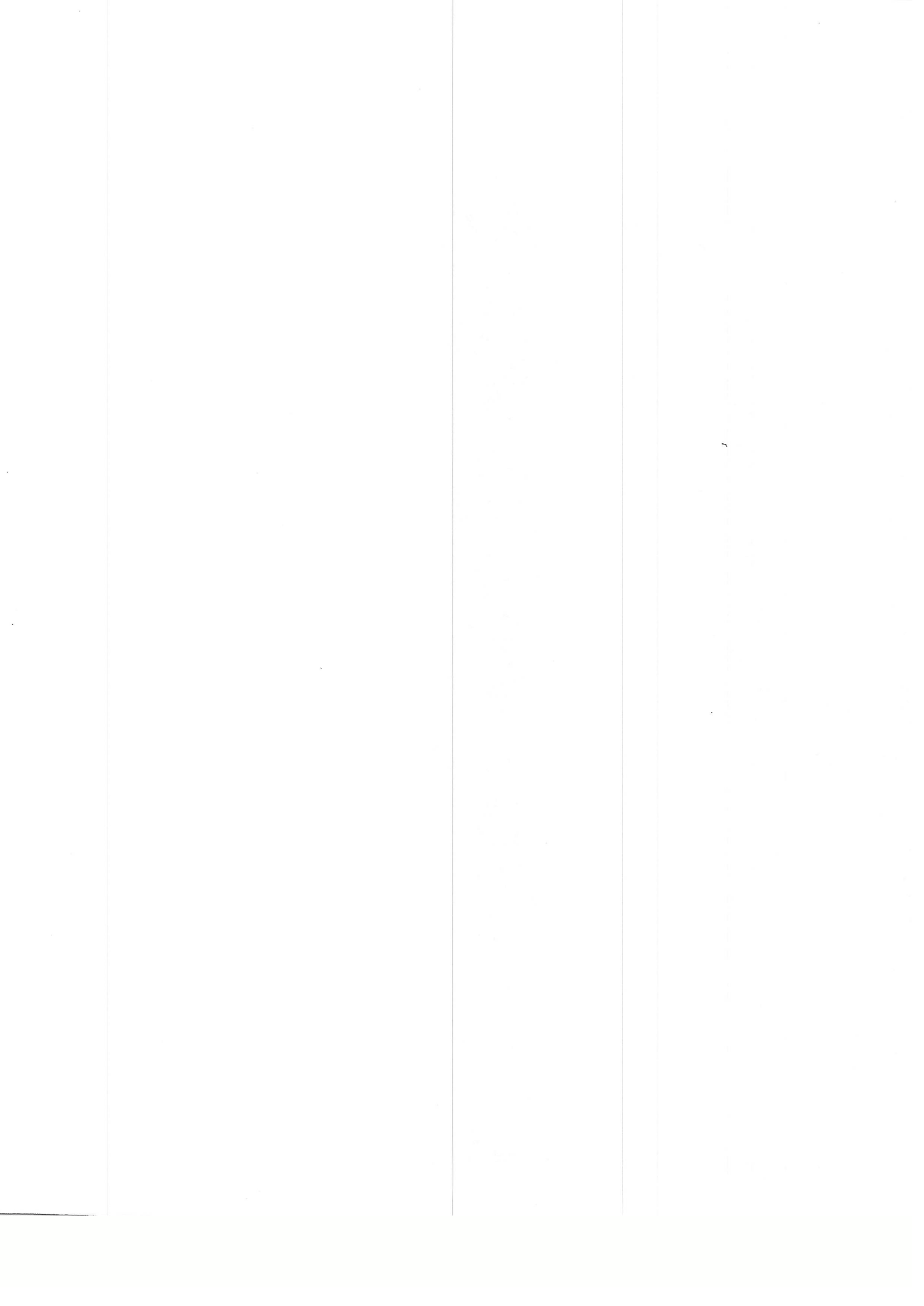
Note how this last example leads the reader from familiar terms (beliefs, inconsistency, discomfort, thoughts) through transition terms (disharmony, cognitions) to the unfamiliar technical terms *cognitive dissonance*, thereby providing an explicit, if nontechnical, definition of it. The following example illustrates how one might define a technical term (ego control) and identify its conceptual status (a personality variable) more implicitly:

The need to delay gratification, control impulses, and modulate emotional expression is the earliest and most ubiquitous demand that society places upon the developing child. And because success at so many of life's tasks depends critically upon the individual's mastery of such ego control, evidence for life-course continuities in this central personality domain should be readily obtained.

And finally, here is an example in which the technical terms are defined only by the context. Note, however, that the technical abbreviation, MAO, is still identified explicitly when it is first introduced.

In the continuing search for the biological correlates of psychiatric disorder, blood platelets are now a prime target of investigation. In particular, reduced monoamine oxidase (MAO) activity in the platelets is sometimes correlated with paranoid symptomatology, auditory hallucinations or delusions in chronic schizophrenia, and a tendency towards psychopathology in normal men. Unfortunately, these observations have not always replicated, casting doubt on the hypothesis that MAO activity is, in fact, a biological marker in psychiatric disorder. Even the general utility of the platelet model as a key to central nervous system abnormalities in schizophrenia remains controversial. The present study attempts to clarify the relation of MAO activity to symptomatology in chronic schizophrenia.

This kind of writing would not appear in *Newsweek*, and yet it is so comprehensible to an intelligent layperson who may know nothing about blood platelets, MAO activity, or biological markers. The structure of the writing itself adequately defines the relationships among these things and provides enough context to make the basic idea of the study and



variables"). If the analysis is unconventional or makes certain statistical assumptions, your data might not satisfy, however, discuss the rationale for it, perhaps citing a reference for readers who wish to check into it further. If your method of analysis is new or likely to be unfamiliar to readers of the journal, you might need to provide a full explanation of it. Sometimes the quantitative treatment of data is a major part of an article's contribution. Variations of multidimensional scaling, causal modeling, and circumplex representations of personality data, for example, have been more important in some articles than the data to which they were applied. In these cases, the method of analysis and its rationale have the same epistemological status as a theory and should be presented in the introduction to the article.

And finally, if the results section is complicated or divided into several parts, you may wish to provide an overview of the section: "The results are presented in three parts. The first section presents the behavioral results for the men, followed by the parallel results for the women. The final section presents the attitudinal and physiological data for both sexes combined." But as I argue below, this kind of "process commentary" should be used very sparingly. In most cases, the prose itself should make it unnecessary.

Presenting the Findings. The general rule in reporting your findings is to give the forest first and then the trees. This is true of the results section as a whole: Begin with the central findings, and then move to more peripheral ones. It is also true within subsections: State the basic finding first, and then elaborate or qualify it as necessary. Similarly, discuss an overall measure of aggression or whatever first, and then move to its individual components. Beginning with one of your most central results, proceed as follows:

1. Remind us of the conceptual hypothesis or question you are asking: "It will be recalled that the men are expected to be more emotionally expressive than the woman." Or, "We ask, first, whether the men or the women are more emotionally expressive." Note that this is a *conceptual* statement of the hypothesis or question.
2. Remind us of the operations performed and behaviors measured: "In particular, the men should produce more tears during the showing of the film than the woman." Or, "Do the men produce more tears during the showing of the film than the women?" Note that this is an *operational* statement of the hypothesis or question.
3. Tell us the answer immediately and in English: "The answer is yes." Or, "As Table 1 reveals, men do, in fact, cry more profusely than women."

4. Now, and only now, speak to us in numbers. (Your grandmother can now skip to the next result in case she has forgotten her statistics or her reading glasses.): "Thus the men in all four conditions produced an average of 1.4 cc more tears than the women, $F(1, 112) = 5.79, p < .025$."

5. Now you may elaborate or qualify the overall conclusion if necessary: "Only in the father-watching condition did the men fail to produce more tears than the women, but a specific test of this effect failed to reach significance, $t = 1.58, p < .12$."

6. End each section of the results with a summary of where things stand: "Thus, except for the father-watching condition, which will be discussed below, the hypothesis that men cry more than women in response to visually depicted grief appears to receive strong support."

7. Lead into the next section of the results with a smooth transition sentence: "Men may thus be more expressive than women in the domain of negative emotion, but are they more expressive in the domain of positive emotion? Table 2 shows they are not . . ." (Again, the "bottom line" is given immediately.) As the results section proceeds, continue to summarize and "update" the reader's store of information frequently. The reader should not have to keep looking back to retrieve the major points of your plot line.

By structuring the results section in this way, by moving from forest to trees, by announcing each result clearly in prose before wading into numbers and statistics, and by summarizing frequently, you permit a reader to decide just how much detail he or she wants to pursue at each juncture and to skip ahead to the next main point whenever that seems desirable.

Figures and Tables. Unless a set of findings can be stated in one or two numbers, results that are sufficiently important to be stressed should be accompanied by a figure or table summarizing the relevant data. The basic rule of presentation is that a reader be able to grasp your major finding *either* by reading the text *or* by looking at the figures and tables. Thus figures and tables must be titled and labeled clearly and completely, even if that means constructing a very lengthy title or heading ("Mean number of tears produced by two affective films as a function of affect valence of tears produced by two affective films as a function of affect valence of subject sex, parental observation, and self-esteem"). Within the text itself, lead the reader by the hand through a table to point out the results of interest: "As shown in Column A of Table 2, men produce more tears (2.33 cc) than women (1.89 cc) . . . Of particular interest is the number of tears produced when both father and mother watch (Rows 3 and 4) . . . Don't just wave in the general direction of the table and expect the rea-

article just to iron out a bump in the logic of the argument. Don't get so attached to your first draft that you are unwilling to tear it apart and rebuild it. (This is why the technique of crafting each sentence of a first draft wastes time. That beautiful turn of phrase that took me 40 minutes to shape gets trashed when the article gets restructured. Worse, I get so attached to the phrase that I resist restructuring until I can find a new home for it.) A badly constructed building cannot be salvaged by brightening up the wallpaper. A badly constructed article cannot be salvaged by changing words, inverting sentences, and shuffling paragraphs.

Which brings me to the word processor. Its very virtuosity at making these cosmetic changes will tempt you to tinker endlessly, encouraging you in the illusion that you are restructuring right there in front of the monitor. Do not be fooled. You are not. A word processor—even in conjunction with a fancy "outline processor"—is not an adequate restructuring tool. Moreover, it can produce flawless, physically beautiful drafts of wretched writing, encouraging you in the illusion that they are finished manuscripts ready to be submitted. Do not be fooled. They are not. To restructure, you must print out a complete copy of each successive draft of your article; spread it out on table or floor; take pencil, scissors, and scotch tape in hand; and then, all by your low-tech self, have at it.

Got that, computer buffs? File transfer the RAM from your desktop metaphor user environment onto hard copy and then invoke a real-time cut-and-paste operation while your mouse enjoys its down time.

SOME MATTERS OF STYLE

Omit Needless Words

Virtually all experienced writers agree that any written expression that deserves to be called *vigorous writing*, whether it is a short story, an article for a professional journal, or a complete book, is characterized by the attribute of being succinct, *concise*, and to the point. A *sentence*—no matter where in the writing it occurs—*should contain no unnecessary or superfluous words*, words that stand in the way of the writer's direct expression of his or her meaning and purpose. In a very similar fashion, a *paragraph*—the basic unit of organization in English prose—*should contain no unnecessary or superfluous sentences*, sentences that introduce peripheral content into the writing or stray from its basic narrative line. It is in this sense that a writer is like an artist executing a drawing, and it is in this sense that a writer is like an engineer designing a machine. Good writing should be economical *for the same reason that a drawing should*

have no unnecessary lines, and good writing should be streamlined in the same way that a machine is designed to have no unnecessary parts, parts that contribute little or nothing to its intended function.

This prescription to be succinct and concise is often misunderstood, and requires judicious application. It certainly does not imply that the writer must make all of his or her sentences short and choppy or leave out all adjectives, adverbs, and qualifiers. Nor does it mean that he or she must avoid or eliminate all detail from the writing and treat his or her subjects only in the barest skeleton or outline form. But the requirement does imply that every word committed to paper should tell something new to the reader and contribute in a significant and non-redundant way to the message that the writer is trying to convey.

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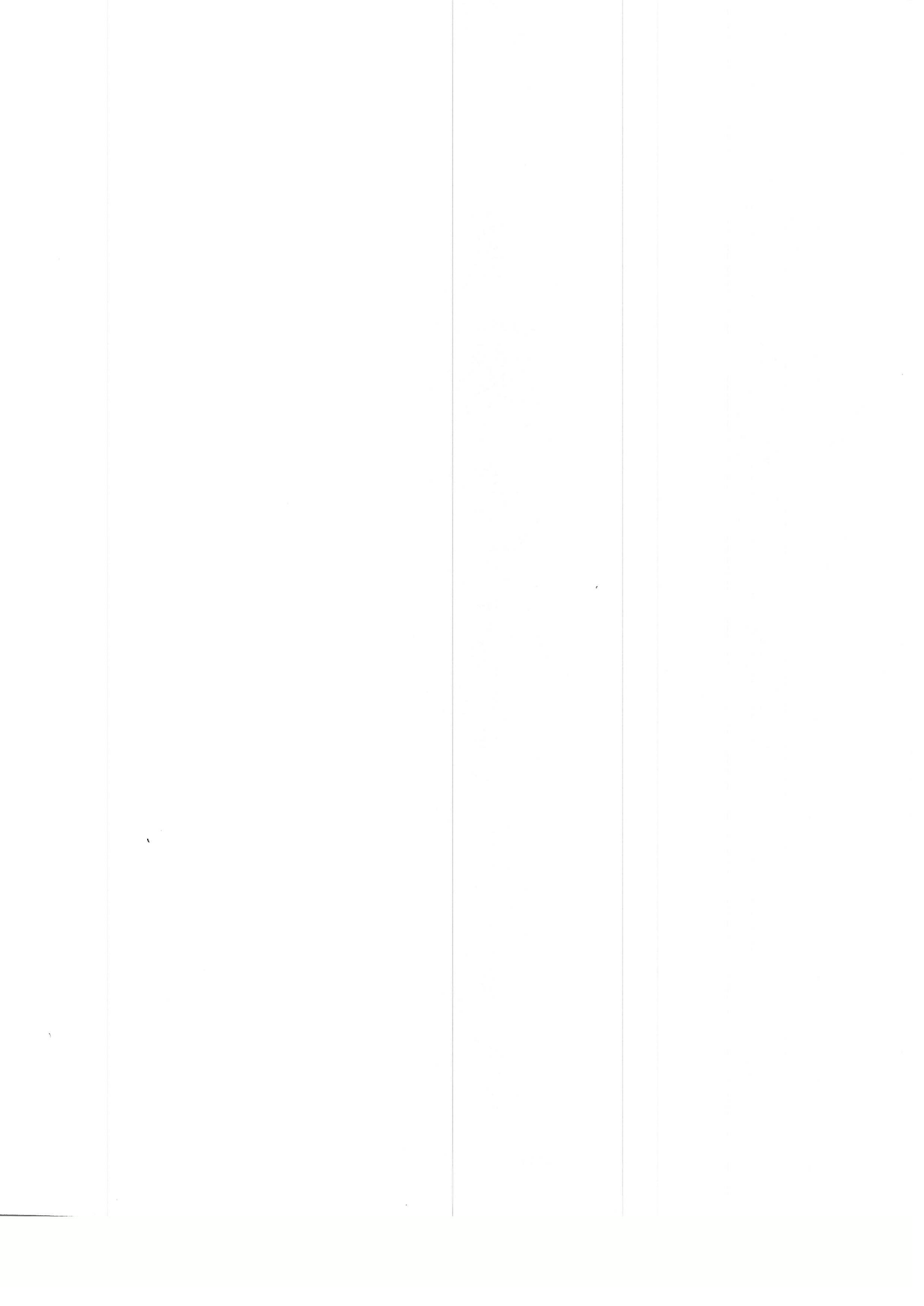
You have just read a 303 word essay on brevity. It is not a bad first draft, but a good writer or copy editor would take its message to heart and, by crossing out all the non-italicized words, cut it by 79%. Savor the result:

Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts. This requires not that the writer make all his sentences short, or that he avoid all detail and treat his subjects only in outline, but that every word tell. [63 words]

This essay on brevity was written by Strunk and White (1979, p. 2) under the heading: "Omit Needless Words." Obey their injunction, for it is the most important piece of advice in this chapter. (But ignore their use of the generic "he" and "his," about which, more later.) Journal articles should also omit needless concepts, topics, anecdotes, asides, and footnotes. Clear any underbrush that chutters your narrative. If a point seen peripheral to your main theme, remove it. If you can't bring yourself to do this, put it in a footnote. Then when you revise your manuscript, remove the footnote.

Copy editing other people's writing is good practice for improving your own. It is also less painful than editing your own and much easier than actually writing. Any piece of prose will do. Here was today's exercise: find my writing class; it is part of a letter Cornell sends out to potential graduate applicants. You may wish to try your hand at it.

Psychology is a wide field of study, and we are not equally strong in all parts of it. At present, we regard our major strengths as lying in three broadly



adjectives. Thus you are correct to suppose that life is more *than* psychology, that living a good life is harder in many respects *than* writing a good article, and that living well requires broader skills *than* does writing well. Just remember that life is different *from* psychology, that living a good life is different in many respects *from* writing a good article, and that living well requires skills different *from* those required for writing well.

None, No one. These words are singular: "None of them is likely to obtain data that are more convincing."

Since versus Because. *Since* means "after that." It cannot substitute for *because*. Wrong: "Since the study of motivation is a high and hazardous undertaking, I wish fewer people would meddle with it." Right: "Because the study of motivation is a high and hazardous undertaking, I wish fewer people would meddle with it." Ambiguous: "Since I read Montaigne, I have been tempted to abandon the study of motivation." This last case is correct if the writer is using *since* in the temporal sense: "Ever since reading Montaigne, I have been tempted . . ." It is incorrect if the writer means *because*.

That versus Which. *That* clauses (called restrictive) are essential to the meaning of the sentence; *which* clauses (called nonrestrictive) merely add further information. The following example illustrates the correct use of both words: "Dissonance theory, *which* has received major attention, is one of the theories *that* postulates a motivational process. . . ." Most *which*'s in person holds two cognitions *that* are inconsistent . . ." Most *which*'s in journal writing are incorrect. You should go on a *which* hunt in your own manuscripts and turn most of them into *that*'s.

While versus Although, But, Whereas. *While* means "at the same time" and in most cases cannot substitute for these other words. Wrong: "While inferential statistics are important, descriptive statistics are important of your narrative." Right: "Although inferential statistics are important, descriptive statistics are the heart of your narrative." Or, "Inferential statistics are important, but descriptive statistics are the heart of your narrative." Wrong: "While I like personality traits, Mischel prefers a social learning approach." Right: "Whereas I like personality traits, Mischel prefers a social learning approach." Interestingly, the following usage is correct: "While I like personality traits, I find merit in Mischel's social learning approach." This can be seen by substituting "at the same time" for "while": "I like personality traits; at the same time, I find merit in Mischel's social learning approach."

Beyond Publication

In writing this chapter, I have presumed that your pressing pragmatic purpose is to transform your studies into publishable—*may*, published—prose. But let your grander goal be to gift that prose with the effortless grace and simple simplicity of a Mozart sonata. This guiding metaphor may not turn all your studies into publications—even Mozart died a pauper—but it will turn your sow's ears into vinyl purses.

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matter how well written, a paper that reflects poor methods is unacceptable.

1.01 Designing and Reporting Research

You, as an author, should familiarize yourself with the criteria and standards that editors and reviewers use to evaluate manuscripts. (See sections 8.12-8.14 for a discussion of the review process.) Editors find in submitted papers the following kinds of defects in the design and reporting of research:

- piecemeal publication, that is, the separation of a single substantial report into a series of overlapping papers;
- the reporting of only a single correlation—even a significant correlation between two variables rarely has any interpretable value;
- the reporting of negative results without attention to a power analysis (see section 1.10);
- lack of congruence between a study's specific operations (including those related to the design and analysis) and the author's interpretation and discussion of the study's outcomes (e.g., failure to report the statistical test at the level being claimed);
- failure to report effect sizes;
- failure to build in needed controls, often for a subtle but important aspect of the study; and
- exhaustion of a problem—there is a difference between ongoing research that explores the limits of the generality of a research finding and the endless production of papers that report trivial changes in previous research.

1.02 Evaluating Content

Before preparing a manuscript, you should evaluate the research and judge that it is an important contribution to the field. An editorial by Brendan A. Maher (1974) will be helpful in making that judgment, and a humorous account by Robert R. Holt (1959, "Researchmanship or How to Write a Dissertation in Clinical Psychology Without Really Trying")

Length. Determine the typical length of an article in the journal for which you are writing, and do not exceed that length unless you are

Before beginning to write, you should consider the following major characteristics of a journal article: length, headings, and tone.

1.05 Length, Headings, and Tone

For more information on how to protect confidentiality in case reports, see www.apastyle.org

Other, less frequently published types of articles in APA journals include brief reports, comments and replies on previously published articles, and monographs. Although the contents of these articles are dissimilar, the manuscripts should still be logically and coherently organized according to the guidelines described in the previous paragraphs. Authors should refer to the journal to which they are submitting the manuscript for specific information regarding these kinds of articles.

On needed research or theoretical matters. In writing case studies, authors carefully consider the balance between providing important illustrative material and using confidential case material responsibly. (See Appendix C, Ethical Principle 5.08, Use of Confidential Information for Didactic or Other Purposes.) Confidentiality is generally handled by one of two means. One option is to prepare the descriptive case material, present it to the subject of the case report, and obtain written consent for its publication from the subject. The other option is to disguise some aspects of the case material so that neither the subject nor those who know the subject would be identifiable. Such disguising of cases is a delicate issue, because it is essential not to change variables related to the phenomena being described. Three main strategies have emerged for achieving this: (a) altering specific characteristics, (b) limiting the description of specific characteristics, and (c) obfuscating case detail by adding extraneous material. For additional information on the presentation of case material, see VandenBos (2001).

■ **non-evaluative:** Report rather than evaluate; do not add to or comment on what is in the body of the manuscript.

■ **coherent and readable:** Write in clear and vigorous prose. Use verbs rather than their noun equivalents and the active rather than the

■ **Use the active voice** (but without the personal pronouns I or we, see section 2.04).

■ **Use digits for all numbers, except those that begin a sentence** (consider recasting a sentence that begins with a number).

■ **Abbreviate liberally** (e.g., use *vs.* for *versus*), although all abbreviations that need to be explained in the text (see sections 3.21-3.26, 3.29) must also be explained on first use in the abstract.

■ **Ways to improve conciseness:**

■ **Use digits for all numbers, except those that begin a sentence** (consider recasting a sentence that begins with a number).

■ **Abbreviate liberally** (e.g., use *vs.* for *versus*), although all abbreviations that need to be explained in the text (see sections 3.21-3.26, 3.29) must also be explained on first use in the abstract.

■ **Use the active voice** (but without the personal pronouns I or we, see section 2.04).

■ **coherent and readable:** Write in clear and vigorous prose. Use verbs rather than their noun equivalents and the active rather than the

■ **non-evaluative:** Report rather than evaluate; do not add to or comment on what is in the body of the manuscript.

■ **concepts, findings, or implications.** Include in the abstract only the four or five most important concepts, findings, or implications. Include in the abstract only the four or five most important concepts, findings, or implications.

■ **not appear in the body of the paper.** If the study extends or replicates previous research, note this in the abstract, and cite the author (initials and surname) and year. Comparing an abstract with an outline of the paper's headings is a useful way to verify its accuracy.

■ **self-contained:** Define all abbreviations (except units of measurement) and acronyms. Spell out names of tests and drugs (use generic names for drugs). Define unique terms. Paraphrase rather than quote. Include names of authors (initials and surnames) and dates of publication in citations of other publications (and give a full bibliographic citation in the article's reference list).

■ **concise and specific:** Make each sentence maximally informative, especially the lead sentence. Be as brief as possible. Abstracts should not exceed 120 words. Begin the abstract with the most important information (but do not waste space by repeating the title). This may be the purpose or thesis or perhaps the results and conclusions. Include in the abstract only the four or five most important concepts, findings, or implications.

another conclusion is better than an extensive and inconclusive discussion. Whatever your personal opinion, avoid animosity and ad hominem arguments in presenting the controversy. Do not support your position or justify your research by citing established authorities out of context.

State the purpose and rationale. After you have introduced the problem and developed the background material, you are in a position to explain your approach to solving the problem. Make this statement in the closing paragraphs of the introduction. At this point, a definition of the variables and a formal statement of your hypotheses give clarity to the paper. Bear in mind the following questions in closing the introduction: What variables did I plan to manipulate? What results did I expect, and why did I expect them? The logic behind "Why did I expect them?" should be made explicit. Clearly develop the rationale for each hypothesis.

1.09 Method

The Method section describes in detail how the study was conducted. Such a description enables the reader to evaluate the appropriateness of your methods and the reliability and the validity of your results. It also permits experienced investigators to replicate the study if they so desire. If your paper is an update of an ongoing or earlier study and the method has been published in detail elsewhere, you may refer the reader to that source and simply give a brief synopsis of the method in this section.

We present cross-sectional and 3-year longitudinal data from a study of adults aged 55 to 84.... The memory tasks were those used in our previous research (Zelinski et al., 1990; Zelinski, Gilewski, & Thompson, 1980).

(See section 1.12 for treatment of multiple experiments.)

Identify subsections. It is both conventional and expedient to divide the Method section into labeled subsections. These usually include descriptions of the participants or subjects, the apparatus (or materials), and

Tables and figures. To report the data, choose the medium that presents them most clearly and economically. Tables commonly provide exact values and, if well prepared, can present complex data and analyses in a format that is familiar to the reader (e.g., ANOVA tables). Figures of professional quality attract the reader's eye, provide a quick impression, and best illustrate complex relationships and general comparisons but are not intended to be as precise as tables. Always be aware that the scale and form of figures can have a great influence on the resulting interpretation of the data, and be scrupulous in presenting data in as fair a manner as possible. Figures are more expensive than tables to reproduce, and both formats are more expensive than text to compose, so reserve them for your most important data and situations where their use enhances your ability to communicate your findings. Summarizing the results and the analysis in tables or figures instead of text may be helpful; for example, a table may enhance the readability of complex sets of analysis of variance results. Avoid repeating the same data in several places and using tables for data that can be easily presented in a few sentences in the text.

When you use tables or figures, be certain to mention all of them in the text. Refer to all tables as *tables* and to all graphs, pictures, or drawings as *figures*. Tables and figures supplement the text; they cannot do the entire job of communication. Always tell the reader what to look for in tables and figures, and provide sufficient explanation to make them readily intelligible (see sections 3.62–3.86 for detailed information on tables and figures).

Statistical presentation. The field of psychology is not of a single mind on a number of issues surrounding the conduct and reporting of what is commonly known as *null hypothesis significance testing*. These issues include, but are not limited to, the reporting and interpretation of results of hypothesis tests, the selection of effect size indicators, the role of hypothesis-generating versus hypothesis-testing studies, and the relative merits of multiple degree-of-freedom tests. A discussion of these and other issues can be found in Willkerson (1999). It is not the role of the

thinking, in general it is the exact probability (p value) that should be reported. There will be cases—for example, large tables of correlations or complex tables of path coefficients—where the reporting of exact probabilities could be awkward. In these cases, you may prefer to identify or highlight a subset of values in the table that reach some prespecified level of statistical significance. To do so, follow those values with a single asterisk (*) or double asterisk (**) to indicate $p < .05$ or $p < .01$, respectively. When using prespecified significance levels, you should routinely state the particular alpha level you selected for the statistical tests you conducted:

An alpha level of .05 was used for all statistical tests.

Two common approaches for reporting statistical results using the exact probability formulation are as follows:

With an alpha level of .05, the effect of age was statistically significant, $F(1, 123) = 7.27, p < .01$.

The effect of age was not statistically significant, $F(1, 123) = 2.45, p = .12$.

The second example should be used only if you have included a statement of significance level earlier in your article.

Effect size and strength of relationship. Neither of the two types of probability value directly reflects the magnitude of an effect or the strength of a relationship. For the reader to fully understand the importance of your findings, it is almost always necessary to include some index of effect size or strength of relationship in your Results section. You can estimate the magnitude of the effect or the strength of the relationship with a number of common effect size estimates, including (but not limited to) r^2 , η^2 , ω^2 , R^2 , ϕ^2 , Cramér's V , Kendall's W , Cohen's d and k , Goodman-Kruskal's λ and γ , Jacobson and Truax's (1991) and

Include an appendix only if it helps readers to understand, evaluate, or replicate the study.

1.15 Author Note

The author note (a) identifies the departmental affiliation of each author; (b) identifies sources of financial support; (c) provides a forum for authors to acknowledge colleagues' professional contributions to the study; and (d) tells whom the interested reader may contact for further information concerning the article.

In addition, the author note is the place for disclosure: for example, mentioning the bases of a study, such as a dissertation or whether the study is part of a large-scale multidisciplinary project; indicating that the results have been presented at a meeting; and explaining relevant interests or relationships that raise the possibility of being perceived as a conflict of interest. (APA authors are required to complete a conflict of interest form; see the journal's instructions to authors.) Authors of book chapters that present a revised, condensed, or expanded version of a previously published journal article should also disclose this information in a note of this type. (See sections 3.89 and 5.20 for details on the arrangement and format of the author note.)

Quality of Presentation

A manuscript that is important enough to write deserves thoughtful preparation. You should evaluate the content and organization of the manuscript just as you evaluated the investigation itself. The following questions (based on Bartol, 1981) may help you assess the quality of your presentation:

- Is the topic appropriate for the journal to which the manuscript is submitted?
- Is the introduction clear and complete?
- Are the techniques of data analysis clearly enough presented so that an individual with a copy of the data set and the coding system could reproduce your analyses?