Title

Beyond Parkinson's Law:
The Effect of Excess Time on Subsequent Performance

Elliot Aronson

and

Eugene Gerard

University of Minnesota

Running Head: PARKINSON’S LAW
Abstract

A laboratory experiment was conducted in which, "by accident," some Ss were allowed too much time in which to perform a task while others were allowed a minimum amount of time. Subsequently, when presented with a similar task, and allowed to work at their own pace, Ss who were allowed excess time initially required more time to complete the task. Thus, going beyond Parkinson's law, not only does a piece of work expand to fill the time available, but once it has expanded it continues to require more time. The phenomenon is discussed in terms of Guthrie's theory of learning and Festinger's theory of cognitive dissonance.
Introduction

The research report begins with the introduction, which is not labeled because of its position in the paper. The introduction is funnel shaped in the sense that it is broad at the beginning and narrow at the end. It should begin with a general introduction to the problem area and then start to narrow by citing the results of prior works that have been conducted in the area and that bear on the specific issue that you are investigating. This leads to a statement of the variables to be investigated. In citing prior research do not attempt to make an exhaustive review of the literature. Cite only those studies that are directly pertinent and avoid tangential references. This pertinent literature should lead directly into your study and thereby show the continuity between what you are investigating and prior research. You should then state preferably in question form, the purpose of your study. The introduction should give the reader the rationale for the current investigation, explaining how it fits in with, and is a logical extension of prior research.

Several years ago, C. Northcote Parkinson (1957) stated his first law: "Work expands to fill the time available [p. 2]." Although Parkinson's intent may have been partially whimsical, his law seems to coincide with casual observation of a great deal of human behavior. Especially credible is his classic example of an elderly lady spending an entire day composing and dispatching a postcard. What are the processes underlying this law? One possibility is that people do not enjoy being completely idle; thus, a person with little to do and a great deal of time in which to do it may redefine the nature of the task so that it becomes more complex and, thus, more time consuming. This redefinition of task requirements is especially likely if the criteria for a "good job" are vague and ill defined. For example, if a teaching assistant must deliver a guest lecture and has only a few hours in which to prepare it, chances are he will be able to perform the task creditably. However, if he has 2 weeks with little else to do, he may spend his time polishing his phrases, rearranging his sentences, pacing, daydreaming, triple checking references, shuffling papers, scratching his head, sharpening pencils, etc. Since much of this activity is irrelevant to a good lecture, it is doubtful whether the finished product will be much more meritorious in the second case than in the first.
An intriguing question arises concerning what will happen the next time a similar task presents itself. It is conceivable that, because a person has had excess time in which to perform the task initially, he may come to define any similar task as one that requires a similar amount of time for "adequate" preparation. Thus, excess time on the first occasion may result in the felt necessity of spending a great deal of time on the task the next time it presents itself.

In a loose molar sense this prediction bears some resemblance to possible derivations from Guthrie’s (1935) theory of learning, in which he states: "A combination of stimuli which has accompanied a movement will on its recurrence tend to be followed by that movement [p. 26]." Although Guthrie's theory was meant to be taken on a more molecular level than our prediction, the derivation seems reasonably clear. Thus, in preparing his second lecture, the teaching assistant may find himself performing "movements" similar to those he performed the first time; that is, he may spend a significant amount of time in phrase polishing, pacing, and sharpening pencils—even if his time is now more limited than before. Our hypothesis is that individuals who are allowed excess time to complete a task on the first occasion will spend more time completing a subsequent similar task than individuals who have been
Method

The primary purpose of the method section is to tell the reader exactly how the study was conducted. This is the part of the research report that must directly satisfy the criterion of replication. If another investigator could read the method section and replicate the study you conducted, then you have adequately described it. Stating exactly how you conducted the study is necessary so that the reader can evaluate the adequacy of the research. In order to facilitate communication, the method section is typically divided into subsections: participants, apparatus, materials, or instruments, and procedure. Deviation from this format may be necessary if the experiment is complex or a detailed description of the stimuli is called for. In such instances, additional subsections may be required to help readers find specific information.

Participants

The participant subsection should tell the reader who the research participants were, how many there were, their characteristics (age, gender), and how they were selected. Any other pertinent information regarding the participants should also be included, such as how they were assigned to the experimental condition, the number of participants that were selected for the study but did not complete it (and why), and any inducements that were given to encourage participation. If animals were used, their genus, species, strain number, and supplier should be specified, in addition to their gender, age, weight, and physiological condition.

METHOD

To test this hypothesis, it was necessary to have individuals perform some tasks; some would be allowed minimum time— others excess time. Moreover, it was essential that the time allowed be seen as arbitrary and accidental rather than as a reflection of the experimenter's opinion of the length of time essential for adequate task performance. The participants could then be assigned a similar task and they themselves could be allowed to determine how work at it. The dependent variable would be of time spent on the second task.

Participants

The participants were 32 undergraduates—16 males and 16 females—who made themselves available for psychological research in order to gain extra credit for their introductory psychology class. Eight males and 8 females were randomly assigned to each of two experimental conditions.
Procedure

In the procedure subsection, the reader is told exactly how the study was executed, from the moment the participant and the experimenter came into contact, to the moment their contact was terminated. Consequently this subsection represents a step-by-step account of what both the experimenter and the participant did during the study. This section should include any instructions or stimulus conditions presented to the participants and the responses that were required of them, as well as any control techniques used (such as randomization or counterbalancing). In other words, you are to tell the reader exactly what both you and the participants did and how you did it.

The experimenter seated the participant in a room which contained a large table, a tape recorder, and a timer. He told the participant that he was in the process of assembling materials for a future experiment involving communication and persuasion. He explained that the participant would not be involved in an experiment as such; he apologized for this but assured each participant would receive experimental credit merely for helping him prepare his materials. The experimenter said that he needed a large number of tape-recorded speeches on a variety of topics. He informed the participant that his job would be to prepare a 2-minute talk (arguing against the prohibition of cigarette ads) and record it so that it could be used as a stimulus in future experiments. He told the participant that, for purposes of the experiments, the talks must appear spontaneous, but to make it easier for him, he would be provided with a list of possible arguments from which he could fashion his own communication. The experimenter then gave the participant a list of arguments and asked him to examine them and prepare his speech.

While the participant was looking over the list and the experimenter was adjusting the tape recorder, the independent variable was manipulated. This was accomplished
by the departmental secretary who came barging into the experimental room on cue, and said to the experimenter: "Dr. Johnson has the apparatus set up and is ready to go. Could you down and help him now?" The experimenter protested, "Gee, I was just working with somebody here." The secretary pleaded, "But it's all set to go you know how he is. It will only take ___ minutes."

In the excess-time condition she announced that it would take 15 minutes; in the minimum-time condition she announced that it would take 5 minutes. The experimenter gave in resignedly, "Only 15 [5] minutes, eh? Well, OK, tell him I'll be right down." The experimenter apologized to the participant (who, of course, had overheard the conversation) and told him that he would be back as soon as he could. "Why don't you work on preparing your speech; you can record it sometime after I return." The experimenter then left the room.

The task was an extremely easy one. The participants simply had to choose several statements from a list of possible arguments and to arrange them in a reasonable sequence. Thus, it was assumed that 5 minutes would be adequate time in which to perform their task. This assumption proved to be correct. After the experiment, when queried, all of the participants in the minimum-time condition felt that the time was
adequate; none felt rushed or pressured.

Care had been taken to keep the room bare of any stimulating material. Thus, in the excess-time condition, the participant was left in the room for 15 minutes with nothing to do but assemble available material for a 2-minute speech. Furthermore, the fact that he had 15 minutes was clearly accidental and could not easily be attributable to the experimenter's judgment of the time requirements of the task.

After 15 [5] minutes, the experimenter returnee, apologized again, and informed the participant that he could now put the talk on tape. He set the timer, started the tape recorder, and left the room. He returned, in 2 minutes and set up the dependent variable by informing the participant that he must now prepare a 2-minute speech on a different topic— the value of intercollegiate athletics. As in the first instance, the experimenter handed the participant a list of possible arguments and once again informed him that he might use any or all of these in preparing his speech. The experimenter told the participant that he should spend as much time as he thinks he needs to prepare a convincing speech.

As a further refinement, half of the participants in each condition were told that they would be free to leave (with full credit) as soon as they had recorded the second
speech. This was done in order to determine whether providing an incentive for speedy performance would counteract the hypothesized "excess time effect" and, therefore, lead to a quicker performance among those participants in the excess-time condition.

The experimenter told all participants to signal him (by nipping a switch) as soon as they felt adequately prepared. He then left the room and activated a stopwatch. The dependent variable was the time the participants spent preparing this speech.

At the close of the experiment the experimenter interviewed each participant, probing to find out whether any participants had suspected the true hypothesis of the experiment. Although several of the participants entertained vague suspicions that the experiment might involve more than what they were told, no one was able to guess the actual hypothesis. The experimenter then explained the experiment in full and discussed the necessity for the deception.

The participants in the excess-time (15-minute) condition were scheduled to begin the experiment precisely at the beginning of a class period. The participants in the minimum-time (5-minute) condition were scheduled to begin 10 minutes after the beginning of a class period. This was done in order to make them equally close (temporally) to the beginning of the next class hour just before the operation for the
The purpose of the results section is to tell the reader exactly what data were collected and how they were used. Significant values of any inferential tests (e.g., t-tests, F-tests, and chi-square measures) should be accompanied by the magnitude of the obtained value of the test, along with the accompanying degrees of freedom, probability level, and direction of the effect. In reporting and illustrating the direction of a significant effect (nonsignificant effects are not elaborated on for obvious reasons), you need to decide on the medium that will most clearly and economically serve your purpose. If a main effect consisting of three groups is significant, your best approach is probably to incorporate the mean scores for each of these groups into the text of the report. If the significant effect is a complex interaction, the best approach is to summarize your data by means of a figure or a table. If you do use a figure or table (a decision that you must make), be sure to tell the reader, in the text of the report, what data it depicts. Then give a sufficient explanation of the presented data to make sure that the reader interprets them correctly. In writing the results section, there are several things you should not include. Individual data are not included unless a single-participant study is conducted. Statistical formulas are not included unless the statistical test is new, unique, or in some other way not standard or commonly used.

Results

The hypothesis was that allowing a person excess time in which to prepare a speech will result in his requiring more time to prepare a subsequent speech. The dependent variable was the time consumed by each participant in preparing his second speech. In the minimum-time condition, participants spent an average of 321 seconds in preparation; in the excess-time condition, participants spent an average of 468 seconds in preparation. This difference is clearly in the predicted direction.

The reader will recall that two additional variables were matched within each condition: the gender of the participant and whether or not the participant was provided with an incentive for quick performance. The means for all 3 three variables are presented in Figure 1. Inspection of Figure 1 reveals that the gender of the participant made little difference in their performance time across experimental conditions. Likewise, providing an incentive for speedy performance made only a slight difference
in the opposite direction; that is, those who were provided with an incentive to finish quickly spent slightly more time on the task than those who were not.

As is typical with measures of time, a plot of the actual scores was positively skewed. The indicated logarithmic transformation (Federer, 1955, p. 47) produced a plot closely approximating a normal distribution. An analysis of variance was performed on the transformed data; it was a $2 \times 2 \times 2$ analysis—the Major Treatment (Time) × Gender × Incentive. The analysis of variance is presented in Table 1. The Major Treatment produced a significant effect: participants in the excess-time condition spent more time than those in the minimum-time condition ($p < .05$). Neither Gender nor an Incentive for speedy performance had any effect, either singly or in interaction.

Discussion

The results support the hypothesis: If allowed excess time to perform a task, participants subsequently consume a greater amount of time in performing a similar task than those allowed a minimum amount of time to perform the initial task. Moreover, this phenomenon appears to be very stable. The participants who were
allowed excess time continued to "procrastinate" on a subsequent task even when provided with some incentive for performing quickly.

This effect appears to be due to the manner in which the participant construes the task. If, initially, he spends a great deal of time in preparation, he apparently defines the task as one that requires a great deal of time. Subsequently, when a similar task must be done, he tends to treat it as a difficult, time-consuming task. The present experiment was primarily a demonstration of the phenomenon and did not shed much light on the actual mechanisms involved. One possibility may involve the kind of stereotypic behavior that Guthrie & Horton (1946) observed in their classic experiment on cats. Provided with excess time, our participants may have performed at a more leisurely pace; they may have thought more meticulously, more cautiously, more slowly. Because of this experience, slow and meticulous thinking may have become their learned (stereotypic) response to this kind of stimulus. Moreover, since they had too much time, they had the opportunity to perform several irrelevant activities in the presence of these stimuli—activities like pacing, head scratching, etc. These irrelevant "movements" may have come to the fore in the presence of a similar task.

A rather different mechanism can be derived from the theory of cognitive
dissonance (Festinger, 1957; Festinger & Carlsmith, 1959). The participant's cognition that he spent a full 15 minutes on the task may have led him to endow it with great importance in order to justify the relatively large expenditure of time and effort. This attributed importance, in turn, could have led him to work hard and long the next time a similar task presented itself.

Further experimentation is required to determine the actual processes involved. Regardless of the mechanism or processes, the phenomenon itself appears to have important practical implications. Our results indicate that people should be assigned a minimum of time to perform a chore. Excess time is not only wasteful in and of itself but leads to the continuous waste of time in subsequent performance. Thus, to go beyond Parkinson's law, not only does work expand to fill the time available, but once it has expanded it continues to require excess time—even when time is not readily available.

References


Table 1. Analysis of Variance on the Transformed Data for Performance Time, Blocked on Initial Time, Gender, and Incentive

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
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<tbody>
<tr>
<td>Time (A)</td>
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<td>.3852</td>
<td>4.372*</td>
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<tr>
<td>Gender (B)</td>
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<tr>
<td>Incentive (C)</td>
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<td>.099</td>
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<td>A×C</td>
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<td>.054</td>
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<tr>
<td>B×C</td>
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<td>.0603</td>
<td>.684</td>
</tr>
<tr>
<td>A×B×C</td>
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<td>.478</td>
</tr>
<tr>
<td>Error</td>
<td>24</td>
<td>.0881</td>
<td></td>
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</tbody>
</table>

* p < .05
The *Research Style Crib Sheet* is a concise guide to using the style of the American Psychological Association in writing research papers. It is based on the current fifth edition of the APA *Publication Manual*. The latest version is at [www.docstyles.com](http://www.docstyles.com). The Crib Sheet is routinely updated; it is the product of many contributors. Doc Scribe is not affiliated in any way with the APA—this style sheet is free! Freeware Copyright 2008 by Dr. Abel Scribe PhD.

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**Notice! This is the final edition of the APA Crib Sheet**

The venerable APA Crib Sheet is being superseded by APA *(Style) Lite for College Papers*. APA Lite is the Crib Sheet on steroids, with expanded graphics and expanded coverage of APA style features—focused and dedicated to crafting college research papers. It is available at [www.docstyles.com](http://www.docstyles.com).

### READ ME

**APA style** is the style of writing used by journals published by the American Psychological Association (APA). The style is documented in the APA *Publication Manual* (5th ed., 2001). The APA Manual began as an article published in *Psychological Bulletin* in 1929, the product of a 1928 conference of anthropologists and psychologists who gathered "to discuss the form of journal manuscripts and to write instructions for their preparation" (APA, 2001, p. xix). The APA first published the guidelines as a separate document called the *Publication Manual* in 1952. Today the manual is in its fifth edition, and APA style is widely recognized as a standard for scientific writing in psychology and education, used by over a thousand research journals.

**APA Manual at Amazon.com:** (Paperback $26.95) (Spiral Bound $33.95).

Some of the more common rules and reference sources in APA style are covered in the APA Crib Sheet. However, this document is no substitute for the 440 page APA Manual, which has evolved into a comprehensive style guide. The APA Manual should be purchased by any serious student preparing an article, theses, or dissertation in psychology or education. It answers question you may not think to ask. The APA Crib Sheet has no affiliation with the American Psychological Association. It began as a "community service" project by Professor Dewey, and has become the most widely consulted resource on APA style on the Internet.

The APA Manual draws a distinction between final manuscripts such as class papers, theses, and dissertations, and copy manuscripts to be submitted for review and publication. The APA Crib Sheet follows the instructions given in chapter six for "Material Other Than Journal Articles" (APA, 2001, pp. 321-330). Final manuscripts differ from copy manuscripts in these ways:

- **Spacing.** "Double-spacing is required throughout most of the manuscript. When single-spacing would improve readability, however, it is usually encouraged. Single spacing can be used for table titles and headings, figure captions, references (but double-spacing is required between references), footnotes, and long quotations" (APA, 2001, p. 326).

- **Figures, tables, and footnotes.** "In a manuscript submitted for publication, figures, tables, and footnotes are placed at the end of the manuscript; in theses and dissertations, such material is frequently incorporated at the appropriate point in text as a convenience to readers" (APA, p. 325).

The most notable additions and changes to fifth edition of the APA Manual (2001) include:

- **Electronic sources** require new formats in references. The formats previously featured on the APA Web site have been superseded. Several formats are included in the Crib Sheet.

- **Italics or underline?** "Use the functions of your word-processing program to create italic, bold, or other special fonts or styles following the style guidelines specified in this *Publication Manual*" (APA, 2001, p. 286).
• Hanging indents. "APA publishes references in a hanging indent format. . . . If a hanging indent is difficult to accomplish with your word-processing program, it is permissible to indent your references with paragraph indents" (APA, p. 299).

**APA EDITORIAL STYLE (TEXT RULES)**

"When editors or typesetters refer to style, they usually do not mean writing style; they mean editorial style--the rules or guidelines a publisher observes to ensure clear, consistent presentation of the printed word" (APA, 2001, p. 77). These style notes cover details commonly encountered when drafting a research paper. These are also the details that knowledgeable readers are likely to note when you get them wrong. You may elect to apply your own best judgment on the more esoteric features, as long as you remember to be slavishly consistent throughout your paper.

**Abbreviations**

Use acronyms only for long, familiar terms (MMPI).

- Explain what an acronym means the first time it occurs: American Psychological Association (APA).
- If an abbreviation is commonly used as a word, it does not require explanation (IQ, LSD, REM, ESP).
- To form plurals of abbreviations, add s alone, without apostrophe (PhDs, IQs, vols., Eds).

Use periods when making an abbreviation within a reference (Vol. 3, p. 6, pp. 121-125, 2nd ed.)

- Use two-letter postal codes for U.S. states (e.g., GA for Georgia) in references (write the state name out in text).
- Use the abbreviation pp. (plain text) in references to newspaper articles, chapters in edited volumes, and text citations only, not in references to articles in journals and magazines.
- Use hr for hour or hours, min for minutes, s for seconds, m for meter or meters (all in plain text, no period, no bold font).
- In using standard abbreviations for measurements, like m for meter, do not add an s to make it plural (100 seconds is 100 s).

**Do not use** Latin abbreviations in the text unless they are inside parentheses. An exception is made for et al. when citing a source. For example, "Smith et al. (2002) found monkeys measured higher in IQ tests than grad students." Instead, write out the equivalent word or phrase:

<table>
<thead>
<tr>
<th>cf.</th>
<th>[use compare]</th>
<th>etc.</th>
<th>[use and so forth]</th>
<th>viz.</th>
<th>[use namely]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g.</td>
<td>[use for example]</td>
<td>i.e.</td>
<td>[use that is]</td>
<td>vs.</td>
<td>[use versus]</td>
</tr>
</tbody>
</table>

- Do not use the old abbreviations for subject, experimenter, and observer (S, E, O).
- Do not use periods within degree titles and organization titles (PhD, APA).
- Do not use periods within measurements (lb, ft, s) except inches (in.).

**Avoiding Biased and Pejorative Language**

In general, avoid anything that causes offense. The style manual makes the following suggestions:

<table>
<thead>
<tr>
<th>DO NOT use . . .</th>
<th>When you can use . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethnic labels (e.g., Hispanic)</td>
<td>geographical labels (e.g., Mexican Americans if from Mexico)</td>
</tr>
<tr>
<td>&quot;men&quot; (referring to all adults)</td>
<td>&quot;men and women&quot;</td>
</tr>
<tr>
<td>&quot;homosexuals&quot;</td>
<td>&quot;gay men and lesbians&quot;</td>
</tr>
<tr>
<td>&quot;depressives&quot;</td>
<td>&quot;people with depression&quot;</td>
</tr>
</tbody>
</table>

**Correct Use of the Terms "Gender" and "Sex"**

- The term "gender" refers to culture and should be used when referring to men and women as social groups, as in this example from the Publication Manual: "sexual orientation rather than gender accounted for most of the variance in the results; most gay men and lesbians were for it, most heterosexual men and women were against it" (APA, 2001, p. 63).
- The term "sex" refers to biology and should be used when biological distinctions are emphasized, for example, "sex differences in hormone production."
- Avoid gender stereotypes. For example, the manual suggests replacing "An American boy's infatuation with football" with "An American child's infatuation with football" (see APA, p. 66).

**Sensitivity to Labels**

A person in a clinical study should be called a "patient," not a "case." Avoid equating people with their conditions, for example, do not say "schizophrenics," say "people diagnosed with schizophrenia." Use the term "sexual orientation," not "sexual preference." The phrase "gay men and lesbians" is currently preferred to the term "homosexuals." To refer to all people who are not heterosexual, the manual suggests "lesbians, gay men, and bisexual women and men" (APA, 2001, p. 67).
An ethnic label can be perceived as a slur if not managed correctly. For example, persons of acknowledged Spanish heritage in the New World may prefer Chicano (Chicana), Hispanic, Latino, Mexican, Mexican American, and so on. Historically, there are no “American Indians,” only members of specific nations, tribes, villages, and bands. The term Native American is inclusive of American Indians, Pacific Islanders, and Alaskan Natives. Specific group names are more informative, such as Hopi or Lakota.

- **Color.** Capitalize Black and White when the words are used as proper nouns to refer to social groups. Do not use color words for other ethnic groups. In racial references, the manual simply recommends that we respect current usage. Currently both the terms "Black" and "African American" are widely accepted, while "Negro" and "Afro-American" are not. These things change, so use common sense.

- **Hispanic.** The terms Hispanic, Latino, and Chicano are preferred by different groups. The safest procedure is to use geographical references. Just say "Cuban American" if referring to people from Cuba.

- **Asian.** The term Asian American is preferable to Oriental, and again the manual recommends being specific about country of origin, when this is known (for example, Chinese or Vietnamese). The manual specifies that hyphens should not be used in multiword names such as Asian American or African American.

- **Indigenous.** Some people from northern Canada, Alaska, eastern Siberia, and Greenland often (but not always!) prefer Inuk (singular) and Inuit (plural) to "Eskimo." But some Alaska natives are non-Inuit people who prefer to be called Eskimo, while others are Athabaskans of an entirely different heritage. Difficulty may be avoided by using geographical references. For example, in place of "Eskimo" or "Inuit" one could use "indigenous people from northern Canada, northern Alaska, eastern Siberia, and Greenland."

- **Age.** In referring to age, be specific about age ranges; avoid open-ended definitions like "under 16" or "over 65." Avoid the term elderly. Older person is preferred. Boy and Girl are acceptable referring to high school and younger. For persons 18 and older use men and women.

**In general,** call people what they want to be called, and do not contrast one group of people with another group called “normal.” Write “we compared people with autism to people without autism” not “we contrasted autistics to normals.” Do not characterize people as victims (e.g., a “stroke victim”), use a descriptive term such as “people who have had a stroke.” Avoid the terms “challenged” and “special” unless the population referred to prefers this terminology (e.g., Special Olympics). As a rule, use the phrase “people with _______” (for example, “people with AIDS,” not AIDS “sufferers” or “victims”).

**Capitalization**

- **Heading caps** capitalize all major words and all words of four letters or more in headings, titles, and subtitles outside reference lists, for example, chapter 6 in the APA Manual (2001) is titled “Material Other Than Journal Articles.”

- **Sentence caps** capitalize the first word and the first word after a comma or colon when the phrase is a complete sentence. For example, “This is a complete sentence, so this is capitalized.”

**The basic rule** is to capitalize terms if they are highly specific—in effect, used as proper nouns. For example, write the nineteen twenties (1920s), but also write the Roaring Twenties. Vague references to the “control group,” or the “test factors” are not capitalized, while references to specific terms are: “Control Group A” and “Test Factor 2.”

- **Color.** Capitalize formal names of tests, conditions, groups, effects, and variables only when definite and specific (e.g., Stroop Color-Word Interference Test, Group A was the control group). But do not capitalize names of laws, theories, and hypotheses (e.g., the law of effect, the test groups). Capitalize nouns before numbers, but not before variables (Trial 2, trial x).

- **Color.** Capitalize specific course and department titles (GSU Department of Psychology, Psych 150). But do not capitalize the term when referring to generalities (any department, any introductory course).

**Commas**

- Do not use commas to separate parts of measurement (9 lbs 5 oz). Use the metric system, as a rule.

- Use commas before "and" in lists, for example, height, width, and depth.

- Use commas between groups of three digits, for example, 1,453.

- Use commas to set off a reference in a parenthetical comment (Patrick, 1993).

- Use commas for seriation within a paragraph or sentence. For example, “three choices are: (a) true, (b) false, and (c) don't know.” Use semicolons for seriation if there are commas within the items. For example, (a) here, in the middle of the item, there are commas; (b) here there are not; (c) so we use semicolons throughout.

- Use commas in exact dates, for example, April 18, 1992 (but not in April 1992).

**Compound Words**

**Compound words** are two or more words that work together in a specified order. This order cannot be reversed or rearranged without destroying the compound word’s meaning. A dictionary is the best guide to spelling and usage. If it is not in the dictionary it is not likely a hyphenated compound, but check the following rules for possible exceptions. If it is in the dictionary, use the first spelling given.
“With frequent use, open or hyphenated compounds tend to become closed (on line to on-line to online). Chicago’s general adherence to Webster does not preclude occasional exceptions when the closed spellings have become widely accepted, pronunciation and readability are not at stake, and keystrokes can be saved” (CMS, 2003, p. 300).

**General Rules**

**Full-time compound** words are hyphenated whatever their role in a sentence—as an adjective or a noun. “The court-martial hearing is set for 1000 hours. The hearing will determine whether a court-martial is warranted.” Court-martial is a full-time compound word (as is “full-time”). This information is given in a dictionary.

**Conditional compounds** are hyphenated as *adjectives*, but not when used as nouns.

1. **Adjectival compound.** “The counselor suggested a role-playing technique to reduce the stress of encounters, but cautioned that role playing alone would not solve the problem.” Role-playing is a compound adjective, but not a compound noun.
2. **Add a hyphen** to any prefix attached to a proper noun, capitalized abbreviation, or number. For example, the post-Freudian era, the pre-1960s civil rights movement, the many non-ASA journals in sociology.
3. **Fractions.** “When . . . a fraction is considered a single quantity, it is hyphenated [whether it is used as a noun or as an adjective]” (CMS, 2003, p. 383). One-fourth the audience was comprised of former refugees. A two-thirds majority was required to pass the initiative.
4. **Made-up compound.** A compound may be of the made-up-for-the-occasion variety: “The up-to-date figures were unadjusted.” But when these terms are used in the predicate they are not hyphenated: The compound word was made up for the occasion. “The unadjusted figures were up to date.”
5. **Serial compounds.** When two or more compound modifiers have a common base, this base is sometimes omitted in all but the last modifier, but the hyphens are retained. Long- and short-term memory, 2-, 3-, and 10-minute trials.
6. **Do not hyphenate** a compound term using an adverb ending in -ly. “The widely used term was not yet in the dictionary. Such clearly understood terms are eventually documented if they endure.”

Avoid confusion! A re-creation is not the same as recreation. Does “the fast sailing ship” refer to a ship that was designed for speed, or one that is making an unusually fast passage? If the former, then it is a fast sailing ship. If it is the latter, then it is a fast-sailing ship (CMS, 1993, p. 203).

**Prefixes**

Through long usage most common prefixes do not require a hyphen: aftereffect, antifreeze, cofounder, Internet, microwave, oversight, preempt, reexamine, supermarket, unbiased, underground. There are many exceptions. When in doubt check a dictionary. Note the following exceptions:

1. **Same two letters.** If the prefix puts the same two letters together, a hyphen is sometimes inserted. For example, write: anti-industrial, co-op, non-native, post-trial. But also write: cooperative, coordinate, nonnegotiable, overrate, overreach, overrule, reelect, unnamed.
2. **Superlatives-diminutives.** Some prefixes, best-, better-, ill-, lesser-, little-, well-, are hyphenated when they precede the noun they modify, but are not hyphenated when preceded by a modifier, or when used as a predicate adjective. The ill-advised attack failed, the strategy was ill advised.
3. **Weird terms.** If the prefix creates an unfamiliar or weird term, a hyphen may improve clarity. The Turabian Guide offers these examples: pro-ally, anti-college instead of proally, anticollege (1976, p. 101).

The following prefixes always require a hyphen.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Example</th>
<th>Prefix</th>
<th>Example</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>all-</td>
<td>all-powerful leader</td>
<td>great-</td>
<td>great-grandfather</td>
<td>self-</td>
<td>self-reliant person</td>
</tr>
<tr>
<td>ever-</td>
<td>ever-faithful friend</td>
<td>half-</td>
<td>half-baked plan</td>
<td>still-</td>
<td>still-active volcano</td>
</tr>
<tr>
<td>ex-</td>
<td>ex-president</td>
<td>much-</td>
<td>much-loved pastor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Emphasis: Italics or Quotation Marks?**

*Italicize or underline* the titles of books, species names, novel or technical terms and labels (the first time only), words and phrases used as linguistic examples, letters used as statistical symbols, and the volume numbers in references to journal articles.

- Add emphasis to a word or short phrase by putting it italics (the first time only). Use this sparingly!
- Add emphasis to a word or phrase in a quotation with italics, followed by the note [italics added] in brackets.
- Note a word used as a word, or a foreign term, with italics, for example, hutte means hut in German.
- Introduce a keyword or technical term (the neoquasipsychoanalytic theory), or identify endpoints on a scale (poor to excellent) with italics.
- Do not italicize foreign words that have entered common usage (et al., a priori, laissez-faire, arroyo).
Use quotation marks for:
- odd or ironic usage the first time—the “outrageous” use of social security funds to finance the deficit.
- article and chapter titles cited in the text but not in the reference list. For example, in Smith’s (1992) article, “APA Style and Personal Computers,” computers were described as “here to stay” (p. 311).

Do not use quotes to hedge, cast doubt, or apologize (e.g., he was "cured"). Leave off the quotes.

**Numbers**

Spell out numbers under 10. “Use figures to express numbers 10 and above and words to express numbers below 10” as long as the numbers below 10 do not express precise measurements and are not grouped with numbers above 10 (APA, 2001, p. 122).

- Spell out common fractions, common expressions, and centuries (one-half, Fourth of July, twentieth century).
- Spell out numbers beginning sentences (Thirty days hath September . . .).
- To make plurals out of numbers, add s only, with no apostrophe (the 1950s).
- When numbers below 10 must be mixed with numbers above 10 in the same sentence they should be written as numerals. For example, write “the students trying out for the soccer team included 5 girls and 16 boys.”
- Use words and numerals with two numbers in series (five 4-point scales).
- Use combinations of numerals and written numbers for large sums (over 3 million people).

**Use numerals** for numbers 10 and above, for exact statistical references, scores, sample sizes, and sums (multiplied by 3, or 5% of the sample).

- Use metric abbreviations with physical measure (4 km) but not when written out (many meters distant).
- Use the percent symbol (%) only with figures (5%) not with written numbers (five percent).
- Put a leading zero before decimal fractions less than one (e.g., 0.25 km), unless the fraction can never be greater than one, as with statistical probabilities (e.g., $p < .01$).
- Ordinal numbers follow the same rules as other numbers. Spell out ordinals below 10: first, second, . . . ninth.

Use numerals for ordinals 10 and above: 10th, 43rd, 99th, and so on. Exception—the twentieth century.

**Statistics**

- Most symbols for statistics are placed in italics (exceptions are very rare).
- Place a space before and after all arithmetic operators and signs ($=, <, >, \cdot, +, etc.$).

Nonstandard symbols are used for some common statistics (check the APA Manual, Table 3.9, for a complete list of accepted symbols):

\[ M = \text{mean (} \bar{X} \text{)}, \quad Mdn = \text{median}, \quad SD = \text{standard deviation (} \sigma \text{)}, \quad SS = \text{sum of squares (} \Sigma X^2 \text{)} \]

**Descriptive statistics** give summary information about a sample or population, such as the average (mean) or standard deviation of some characteristic. For example, “Abigail Scribe has a GPA of 3.65, which is below the average for students accepted at Ivy and Oak University ($M = 3.85, SD = 0.21$).” Descriptive statistics may be presented in the text with the appropriate syntax (e.g., “a GPA of 3.85”). When referred to indirectly they are set in parentheses, as with ($M = 3.85, SD = 0.21$).

**Inferential statistics** reason from a sample to the characteristics of a population, often expressed as a probability. For example, “Abbie Scribe has a chance of being accepted at Ivy and Oak University ($p < .15$), but counselors advise her that her odds are not great based on last year’s applicants, $X^2(2, N = 2247) = 2.81, p < .15$ (one-tailed).” Inferential statistics are presented in the text (no parentheses) with “sufficient information to allow the reader to fully understand the results of the analysis. . . . [Which] depends on the analytic approach selected” (APA, 2001, p. 138). Examples from the APA Manual (2001):

$t(60) = 1.99, p = .03$ (one-tailed), $d = .50; \quad X^2(4, N = 90) = 10.51, p = .03$.

The first number in parentheses is degrees of freedom of the analysis; the N in the $X^2$ statistic is the sample population.

**Punctuation, Lists, & Spacing**

- Do not use a colon or other punctuation after an introduction which is not a complete sentence such as this one, or any other sentence in the body of text which flows into an extended quote. The quote “picks up where the sentence leaves off” and provides the punctuation.
- Use a dash (an em dash or double hyphen) when there is a sharp break—usually an apposition—in the flow of a sentence. Overuse “weakens the flow of the writing” (APA, 2001, p. 81).

Dr. Abel Scribe PhD - - - - - - - - - - - - - - - - - - - - - - - - - - - - www.docstyles.com
Lists. When enumerating a series of topics or subjects: (a) introduce each topic with a letter in parentheses, (b) following a colon, to (c) emphasize their distinctiveness. This is called enumeration or seriation.

When listing separate paragraphs in a series, use a number and a period, not parentheses and letters.

1. The first paragraph goes here.
2. The second paragraph goes here.

No bullets? The APA Publication Manual makes no mention of using bullets in research papers. There are no examples of the use of bullets in recent publications. "Bullets (heavy dots . . . ) make good visual signposts in unnumbered lists but can lose their force if used too frequently" (CMS, 2003, p. 272).

Space once after all punctuation, including:

- after commas, colons, and semicolons;
- after punctuation marks at the ends of sentences;
- after periods that separate parts [elements] of a reference citation
- after periods of the initials in personal names (e.g., J. R. R. Tolkien).

Do not space after internal periods in abbreviations (e.g., a.m., i.e., U.S.) or around colons in ratios (APA, 2001, 291).

Space twice at the ends of sentences? The APA Manual (2001) encourages exceptions for final manuscripts when they "better serve communication and improves the appearance of the final document" (p. 325).

Quotations

Shorter quotes, less than 40 words, are placed in the text in quotation marks. Longer quotes, 40 words or more, are indented and single spaced as a block quote, without quotation marks.

- Reproduce a quote exactly. If there are errors, introduce the word sic italicized and bracketed—for example, “the speaker sttututet [sic] terribly”—immediately after the error to indicate it was in the original.

- When the author is introduced in the text the page number follows the quotation, but the date follows the author’s name. Smith (1999) reported that “the creature walked like a duck and quacked like a duck” (p. 23). The abbreviation “p.” for page (“pp.” for pages) is lower cased.

- Without an introductory phrase, the author, date, and page are placed together. For example, It was reported that “the creature walked like a duck and quacked like a duck” (Smith, 1999, p. 23).

Edit quotes. Effective writing seeks to merge quotations into the flow of the text. Edit a quotation according to the following rules (see APA, 2001, pp. 119–120):

- Change case/punctuation. Double quotation marks may be changed to single quotes, and the reverse, without indicating the change. The case of the letter beginning the quote, and punctuation ending it, may be changed to fit the syntax. For example, drawing on a sentence above, write: "Merge quotations into the flow of the text!" Do Not write "[M]erge quotations . . . ." in APA style (but see Chicago Manual of Style, 2003, p.462).

- Omit . . . Words. Words may be omitted from a quote as long as the original meaning is not altered. The omission is an ellipsis, and is indicated by inserting three ellipsis points, three periods with a space before, after, and between each period; between two sentences, four points are used. "Do not use ellipsis points at the beginning or end of any quotation unless, in order to prevent misinterpretation, you need to emphasize the quotation begins or ends in misstatement" (APA, p. 119).

- [sic]. Obvious errors in a quotation may be corrected without making a special notation. But for an unusual word choice, concept, term, or spelling, it may be appropriate to emphasize that the original is being quoted faithfully by inserting the Latin term sic (thus), in italics or underlined, and in brackets, immediately following the term (see APA, p. 118). For example, "the hapless students in the study stuttered [sic] unbearably."

- [Add note]. A clarification may be inserted in a quote. This is added in brackets at the appropriate place. For example, the local authority reported "they [the Irish Republican Army] called for a cease-fire."

- [Italics added]. Emphasis may be added to a quote with italics. When this is done a note must be appended to the quote in brackets immediately after the change [Italics added] to the quotation.

Block quotes, quotations of 40 words or longer, are indented and single-spaced (double space in papers for review or publication). Indent the entire block five spaces (one-half inch, 1.25 cm), indent each paragraph after the first as well if there are several paragraphs within the quote. Add the citation after the final punctuation.

Block quotes may be single spaced in research papers, but must be double spaced in copy manuscripts submitted for publication or review (see APA, p. 326).

Terminology

Despite dictionary advice to the contrary, APA style insists that data is the plural form of datum. Preferred forms of words are (see APA, 2001, p. 89):

- appendix (appendices not appendices)
- datum (data is plural only!)
- matrix (matrices not matrixes)
- phenomenon (phenomena is plural)
- schema (schemas is plural)
Internet terms are in a state of transition. Whatever form you use, be consistent!

- **e-mail** The hyphenated form is found in the AMA, APA, CMS, and MLA style manuals! The *e* is never uppercased except at the beginning of a sentence.
- **Internet [Net]** Internet is a proper noun.
- **electronic mailing list [listserv]** The APA manual notes that Listserv is a trademarked name for an *electronic mailing list* (the term it prefers instead).
- **Web** This is a proper noun. When *Web* is used in an open compound term (or with a hyphen when used as an adjective), as in *Web page*, *Web* is uppercased. When the compound term is closed, *Web* is spelled lowercased, as in *webmaster*.
- **Web based [Web-based]** This term was found in the APA manual, spelled open as a noun. It was found in Wired Style spelled with a hyphen used as an adjective (1999, p. 173).
- **Web page [Web page], Web site [Web site]** This term is spelled open. When a compound term is spelled open (without a hyphen), or as a compound adjective (with a hyphen), as in *Web page*, *Web-page design*, then *Web* is uppercased.
- **webmaster, web...** Most Web terms (except *Web ring*) are spelled lowercased and closed (without a hyphen): webcam, webcast, webhead, webmail, webzine, etc. (then again, there’s also *WebTV*). But some of these terms should probably be spelled open in formal writing—Web cam, Web cast, Web mail, Web TV.

PAGE FORMATS

**The title page** combines the title and abstract and follows suggestions in the APA Manual (2001, p. 326). Blocks of text (title, author, abstract) are single-spaced within, double- or triple-spaced before and after. The page number is placed bottom center. The author’s university affiliation is already known; substituting the course and date adds more useful information. The running head is dropped as it serves no purpose except for publication. A bold font for the title and headings improves readability (APA, p. 325). Without an abstract place title and author midpage.

**Title & Text Pages for Final Manuscripts**
Text Details

- **Margins** should be at least 1" around the page (about 2.5 cm); wider left if the paper is to be bound.
- **Double-space** the text. “When single-spacing would improve readability, however, it is usually encouraged. Single spacing can be used for table titles and headings, figure captions, references (but double-spacing is required between references), footnotes, and long quotations” (APA, 2001, p. 326).
- **Space once** after all punctuation (APA, p. 290). When spacing twice at the end of a sentence would “improve readability,” it is encouraged (APA, p. 325). Be consistent.
- **Header.** The page header summarizes the title in a few words. The header and page number go inside the margin space, double spaced above the text, next to the right margin, except on the title page.
- **Justification?** Hyphens in words can confuse a reader. “Do not justify lines . . . leave the right margin uneven, or ragged. Do not divide words at the end of a line, and do not use the hyphenation function [of your word processor] to break words at the ends of lines” (APA, p. 287). But “justified margins may substitute for ragged right margins” in final manuscripts (APA, p. 325).
- **Page numbers** are required on every page: Number pages consecutively.
- **Paper.** Use only 8-1/2 by 11 inch white paper. A 20 pound or 24 pound, high brightness (80+), paper works best. Avoid lighter papers (16 pound or less) and textured papers such as erasable bond (APA, p. 284). If you must use the latter, photo copy the final draft.
- **Indent** paragraphs, block quotes, and hanging indents one-half inch (1.25 cm or five to seven spaces).
- **Footnotes** are rarely used in APA papers, except for author affiliation and contact information—the author note. If you need to add an explanatory note make it an endnote or an appendix.

### Typeface
The text of the paper should be in a serif typeface (e.g., Courier, Times Roman) with lettering on figures in a sans serif typeface (e.g., Helvetica, Arial). “The size of the type should be one of the standard typewriter sizes (pica or elite) or, if produced from a word processing program, 12 points” (APA, 2001, p. 285).

### Headings
APA headings follow a complex hierarchy, with provision for up to five levels. These come, in descending order, as levels 5, 1, 2, 3, 4. But if up to three levels of headings are required, use levels 1, 3, and 4, in that order. If four levels are required, insert level 2 between levels 1 and 3. If five levels are required, start with level five and work down in order (5, 1, 2, 3, 4). Confused? Many papers will need no more than three levels. To avoid confusion these are labeled A, B, and C (APA levels 1, 3, and 4 respectively) (see APA, 2001, pp. 114–115). Use headings in the order presented. Do not begin a paper with the heading *Introduction,* this is understood.

<table>
<thead>
<tr>
<th>Margins are 1 inch around the page. A serif font (e.g., Times) is required.</th>
<th>Short Title Header 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level A</strong></td>
<td><strong>Level A Heading: Major Section</strong></td>
</tr>
<tr>
<td><strong>Leveling</strong></td>
<td><strong>Heading or the Main Title</strong></td>
</tr>
<tr>
<td>The APA Manual (2001) notes that “because the introduction is clearly identified by its position in the article, it is not labeled [with a heading]” (p. 16). The Manual also advises in chapter 6, “Material Other Than Journal Articles,” that double-spacing is required throughout most of the manuscript. When single-spacing would improve readability, however, it is usually encouraged. Single-spacing can be used for table titles and headings, figure captions, references (but double-spacing) is required between references), footnotes, and long quotations. Long quotations [40 words or more] may also be indented five spaces or 1/2 inch. (p. 326)</td>
<td></td>
</tr>
<tr>
<td><strong>Level B</strong></td>
<td><strong>Level B Heading: At Left Margin in Italic and Heading Caps</strong></td>
</tr>
<tr>
<td>There is a complex hierarchy of up to five levels of headings in APA style. Most papers can manage with just three. These are illustrated on this page (see APA, sec. 5.10).</td>
<td></td>
</tr>
<tr>
<td><strong>Level C</strong></td>
<td><strong>Paragraph heading in italics and sentence caps.</strong> Level C headings are indented and begin a paragraph; so they are also known as <em>run-in</em> or <em>paragraph</em> headings. They need not be a complete sentence but end with a period or other appropriate punctuation.</td>
</tr>
</tbody>
</table>
References & Tables
Number tables consecutively as they appear in your text. Use only whole numbers, no 5a, 5b, etc. See recent issues of the American Psychologist or other APA journals for more complex table layouts. "Tables are efficient, enabling the researcher to present a large amount of data in a small amount of space" (APA, 2001, p. 147). Use block paragraph spacing for references—single-spacing within references, double-spacing between.

<table>
<thead>
<tr>
<th>Table Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place tables close to where they are first mentioned in your text, but do not split a table across pages. (Tables in papers submitted for review or publication are placed on separate pages at the end of the paper.)</td>
</tr>
<tr>
<td>Label each table beginning with the table number followed by a description of the contents in italics.</td>
</tr>
<tr>
<td>Horizontal rules (lines) should be typed into tables; do not draw them in by hand.</td>
</tr>
<tr>
<td>Each row and column must have a heading. Abbreviations and symbols (e.g., &quot;%&quot; or &quot;nos.&quot;) may be used in headings.</td>
</tr>
<tr>
<td>Do not change the number of decimal places or units of measurement within a column. &quot;Use a zero before the decimal point when numbers are less than one&quot; (APA, p. 128). Write &quot;0.23&quot; not &quot;.23&quot;</td>
</tr>
<tr>
<td>Add notes to explain the table. These may be general notes, footnotes, or probability notes.</td>
</tr>
<tr>
<td>General notes follow the word Note: (in italics) and are used to explain general information about the table, such as the source.</td>
</tr>
<tr>
<td>Footnotes are labeled &quot;a, b, c, etc.&quot; and set in superscript. They explain specific details.</td>
</tr>
<tr>
<td>Probability notes are indicated by asterisks and other symbols to indicate statistical significance. This is explained in the probability note at the bottom of the table. &quot;Assign a given alpha level the same number of asterisks from table to table within your paper, such as *p &lt; .05 and **p &lt; .01; the larger [greater] probability receives the fewest asterisks [the smaller or lessor probability gets more asterisks]&quot; (APA, p. 170).</td>
</tr>
<tr>
<td>You may both single-space and double-space within a table to achieve clarity. Tables in papers submitted for review or publication (only!) must be double spaced throughout.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References</th>
</tr>
</thead>
</table>

| Table of Homicides by Race of Victim: United States 1993 |
| Race | Population | Homicides | Rate |
| Black | 29,986 | 12,114 | 40.5* |
| White | 199,686 | 12,153 | 6.1 |
| Other | 19,038 | 635 | 3.3** |
| Total | 248,710 | 24,932 | 10.0 |

*Population in 1000s. *Rate per 100,000 persons. 
*p < .05, two-tailed test. **p < .01, two-tailed test. 
There are three kinds of notes that may be added to a table: (a) general notes that apply to the entire table following the word Note in italics, (b) specific notes marked by superscript letters, and (c) probability notes. Each type of note begins on a new line. 
Line spacing in tables in final manuscripts may be adjusted to improve readability (APA, 2001, p. 325). However, the tables in copy manuscripts must be double-spaced throughout.
RESEARCH DOCUMENTATION

Text Citations
Use the author-date format to cite references in text. For example: as Smith (1990) points out; a recent study (Smith, 1990, p. 123) shows. . . . Every source cited in your text—and only those sources—are given in the reference list.

<table>
<thead>
<tr>
<th>Source</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Author</td>
<td>(Short Title, 2004) (&quot;Short Title,&quot; 2004)</td>
</tr>
<tr>
<td>1 Author</td>
<td>(Smith, 2005) (Smith, 2005, p. 123)</td>
</tr>
<tr>
<td>2 Authors</td>
<td>(Smith &amp; Jones, 2001, pp. 123-126)</td>
</tr>
<tr>
<td>3/5 Authors</td>
<td>(Smith, Jones, and Garcia, 2003)</td>
</tr>
<tr>
<td></td>
<td>Next Cite: (Smith et al., 2003, p. 123)</td>
</tr>
<tr>
<td>6 Authors+</td>
<td>(Smith et al., 2002, pp. 123-456)</td>
</tr>
<tr>
<td>Corporate Acronym</td>
<td>(United Nations [UN], 1999)</td>
</tr>
<tr>
<td></td>
<td>Next Cite: (UN, 1999, p. 123)</td>
</tr>
</tbody>
</table>

- **Three to five authors** list all authors in the first citation; the lead author *et al.* (and others) in subsequent citations: first, (Smith, Jones, Andrews, Baker, & Charles, 2001); next, (Smith et al., 2001).
- **Six or more authors** list the lead author *et al.* in all citations.
- **Corporate author.** If a group is readily identified by an acronym, spell it out only the first time. For example, "As reported in a government study (National Institute of Mental Health [NIMH], 1991) . . . ." The next citation gives just the initials and year, (NIMH, 1991).
- **No author.** If the author is unknown, use the first few words of the reference list entry (usually the title), for example: ("Study Finds," 1992). Use *heading caps* in the text when noting a title (sentence caps in references)!
- **Reprints** cite the he original publication date and reprint date if both are known, for example: (James, 1890/1983). Translations of classics note the date of the translation: (Aristotle, trans. 1931).
- **Personal communication.** E-mail and other "unrecoverable data" are cited cite as personal communications, for example: (C. G. Jung, personal communication, September 28, 1933). These sources do not appear in the reference list.
- **Always cite page numbers after quotations.** For example, the author noted, "The rats feel asleep within minutes" (Jones, 2003, p. 76). Or, Jones (1993) found "the rats feel asleep within minutes" (p. 76).
- **If the citation is repeated in the same paragraph, the year may be omitted.** For example (Smith et al., 2002, p. 22), then (Smith et al., p. 23).
- **Use an ampersand (&) in references and parenthetical citations only:** write *and* in plain text, for example, Smith and Sarason (1990) explained . . . . Or write: (Smith & Sarason, 1990).
- **If there are two or more citations that shorten to the same lead author and date, give as many additional names as needed to identify them, e.g.,** (Smith, Jones, et al., 1991) and (Smith, Burke, et al., 1991).
- **When citing multiple works by the same author, arrange dates in order.** Use letters after years to distinguish multiple publications by the same author in the same year, e.g., (Johnson, 1988, 1990a, 1990b).

Reference Lists
List references alphabetically by author. When there are multiple works by the same author, list references by date, the most recent last.

1. **Use prefixes if they are commonly a part commonly part of the surname** (e.g., *de Chardin* comes before *Decker, MacGill* comes before *McGill*). But do not use *von* (e.g., write: Helmholtz, H. L. F. von).
3. **Alphabetize corporate authors by first significant word.** Do not use abbreviations in corporate names.

Abbreviations
Use the abbreviation p. (pp.) before page numbers in encyclopedia entries, multi-page newspaper articles, chapters or articles in edited books, but *not* in journal or magazine article citations, where numbers alone are used. The following abbreviations are commonly used in APA references:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>chap.</td>
<td>chapter</td>
</tr>
<tr>
<td>ed.</td>
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<td>vols.</td>
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Basic Rules
1. **Authors & editors.** List up to six authors to a work, if more than six add et al. Invert all authors’ names, using first & middle initials. With two or more authors place an ampersand & < before the final name. Note, unless they are serving in place of authors in a reference, editors’ names go in their normal order (First. M. Last).

2. **Character Spacing.** Space once after all punctuation except inside abbreviations, ratios, and URLs where no space is required (APA, 2001, pp. 290–291). Space once after the periods in references and initials.


4. **Date.** Use the month-day-year format for full dates, but see the sample references for newspapers.

5. **E-documents.** When quoting electronic documents without page numbers, cite paragraph numbers if given, after the paragraph symbol or abbreviation para. (e.g., Smith, 2000, ¶ 17). If there are no paragraph numbers, cite the nearest preceding section heading and count paragraphs from there (e.g., Smith, 2000, Method section, para. 4).

6. **E-mail and other "unrecoverable data" are cited as a personal communication, for example: (A. B. Carter, personal communication, April 1, 2005). These do not appear in the reference list.

7. **Titles of Works.** All titles require sentence caps (all words lowercase except for the first word, first word after a colon, and proper nouns). Article titles are not placed in quotes in references (they are when mentioned in the text). Italicize titles of books, reports, working and conference papers, dissertations, and similar documents.

Sample References
**Anonymous or Unknown Author:**

Citation: (“Annual Smoking,” 2002). Use heading caps when citing titles in text citations.

**Articles in Research Journals:**

Citation: (Abelson, 1997). APA style places the volume (but not the issue number in a volume) in italics with the name of the journal.

**Two authors:**

Citation: (McGlynn & Brook, 2001).

**Three to five authors:**

First Citation: (Miller, Emanuel, Rosenstein, & Straus, 2004); next citations: (Miller et al., 2004).

**Six authors:**

All citations: (Mokdad et al., 2001).

**More than six authors:**

All citations: (McGlynn et al., 2003). In the reference list the first six authors, then add et al.

**Group author & online variants:**

Citation: (Hypericum Depression Trial Study Group, 2002). Cite the full name of a corporate author.

**Annual Review:**

**Book review:**
Electronic formats:

Many documents are now available online as exact facsimile copies of the print original (usually in Adobe’s PDF format). References to these facsimiles just add the note [Electronic version] to the reference. If the document is not an exact copy of a print version (e.g., the format differs from the print version or page numbers are not indicated)—add the date you retrieved the document and the URL to the reference (APA, 2001, p. 271).


Journals paged by issue (online):
Conway, L. G., III. (2001). Number and age of citations in social-personality psychology over the lifespan of the field: Older and wiser? Dialogue, 16(2), 14-15.

Add the issue in the volume (in parentheses in plain text) to these reference after the volume number.

Regular column:

Special issue or supplement:

Books and Chapters:
Group author:

Citation: (American Psychological Association [APA], 2001); next citation (APA, 2001). Note: “Author” is used for the publisher’s name above when the author and publisher are identical, an APA quirk.

Three to five authors:

Citation: (Booth, Colomb, & Williams, 1995); next citation (Booth et al., 1995).

Chapter or section in a book (online & print):

Citations: (Beers & Berkow, 1999, chap. 189); (Stephan, 1985).

Edited book (two or more editors):

Edition other than the first (two authors):

Reprint/translation (one author & editors):
Citation: (Ebbinghaus, 1885/1913).
Conference Papers:
Published (referenced as a chapter in an edited book):

Unpublished (more than six authors):

Newspapers and Magazines:
Magazine article:

Newspaper articles (online):

Reference Works:

Multivolume references:

Statistical abstract:

Reports, Software, Theses:
Computer software:

Government report online accessed through GPO database:
Citation: (National Institute of Mental Health [NIMH], 2002); next citation (NIMH, 2002).

Monograph online:


Pamphlet-brochure
Technical report (print/online versions):


Theses or dissertation:


Web Pages:


Purdue University Online Writing Lab. (2003). *Using American Psychological Association (APA) format* (Updated to 5th edition). Retrieved February 18, 2003 from the Purdue University Online Writing Lab at http://owl.english.purdue.edu/handouts/print/research/r_apa.html

State Abbreviations Used in References

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Acknowledgments

The APA Research Style Crib Sheet is built upon the venerable APA Crib Sheet by Professor Dewey (see below). The Crib Sheet was brought up to date with the current APA Publication Manual (5th ed.; 2001) by Doc Scribe in 2003, and revised and updated each year since to the point where there is little left of the original.

From the original APA Crib Sheet:

[This page is a summary of rules for using APA style. The version you are reading was revised 10/10/96, edited and revised again on September 5, 2000 with Bill Scott of the College of Wooster, and updated in April 2004 by Doc Scribe. I have made every effort to keep this document accurate, but readers have occasionally pointed out errors and inconsistencies which required correction. I am grateful to them and invite additional feedback. This document may be reproduced freely if this paragraph is included. –Russ Dewey]