

Psych 720 Written Assignments

Motivation (from Dan Goldreich's *3BN3 guidelines*)

An essential skill in any scientific field is the ability to critically read the research literature. Casual readers who accept published studies at face value can easily be misled by faulty findings, and may find themselves mired in confusion, unable to evaluate the relative merits of conflicting studies. In this class, you will practice and develop your ability to critically read primary research articles.

Because the road to scientific discovery is fraught with obstacles and pitfalls, the perfect study that unambiguously "proves" a set of clear conclusions is extremely rare. Nearly all research studies have limitations. There is often reason to question a study's rationale, methods, results, or conclusions. Even excellent studies usually leave some loose ends.

Generally, an excellent study asks an important research question and comes close to convincingly answering it. This study uses a well-designed and well-executed methodology, and it reaches well-founded conclusions. Because its question is interesting and its conclusions are well-founded, the excellent study influences the understanding of researchers in the field. It may make researchers realize that what they previously suspected to be true (but were unsure of) is in fact very likely to be true, or that what they previously believed is in fact probably false. It may cause researchers to ponder ideas they had not previously considered. It may lead researchers to pursue exciting new directions.

A poor study, by contrast, either asks an uninteresting question (for example, one whose answer is already well established or would not advance the field), or has serious flaws that preclude convincing conclusions. A poor study leaves researchers in the field with essentially the same knowledge they had before reading it.

Not surprisingly, the typical research study lies somewhere between these two extremes.

Reading a scientific paper critically means not passively accepting the author(s)' interpretation of their data, but rather asking yourself at each point what the data tell you. If the paper's methodology is flawed or the data were collected inappropriately, then the data may carry no real information. Quite commonly, you may find some—but not all—of the data 'convincing' (ie. you accept these data as correct and you interpret them as the authors do). Alternatively, you may decide that you accept the data as correct, but that you disagree with the authors' interpretation of their meaning.

As you read the paper, ask yourself the following: Was the study's research question important, or was it uninteresting? Are the data trustworthy? Which, if any, of the study's conclusions are convincing, and which are uncertain or doubtful? Generally, a conclusion expressed in a paper is convincing if you can think of no plausible alternative explanation. A conclusion is uncertain if a plausible alternative explanation occurs to you. A conclusion is doubtful if you consider your alternative explanation to be more likely than the one expressed in the paper.

Once you have critically read the paper, you will be in a position to ask the final question: Where do we go from here? This further research may include experiments to deal with unresolved issues from the paper and/or to address new questions or directions revealed by the paper.

Content

A position paper is a brief written communication that conveys your understanding of an article. The emphasis in a position paper is on original critical thought rather than on summarizing the content of the article, although as described below a brief summary of the article is an appropriate starting place for a position paper.

A reasonable structure for a position paper might be as follows:

1. A brief summary of the key themes in the article

- A position paper might begin with a statement of the research question, the method used to address the research question, the critical results, and the theoretical implications of those results. This summary should be concise, in most cases no more than a single paragraph.

2. Illustration of critical thought

- A position paper should include some critical thought on the content of the article. There are many ways to demonstrate critical thinking in your writing, which include but are not limited to the following:
 - a. Integrate the conceptual issues raised in the article with other conceptual issues not discussed explicitly by the authors.
 - b. Discuss critically the link between data and theory offered by the authors
 - c. Discuss implications of the empirical findings that are not mentioned in the article (either theoretical or practical/applied)
 - d. Discuss methodological limitations of the research, and offer suggestions as to how to overcome these limitations
 - e. Describe a follow-up experiment that would extend the research described in the article in an interesting direction

In short, anything you can do to illustrate critical thought will contribute positively to your paper, while simply giving back the content of the article to the reader is discouraged. You are not required to refer to any sources other than the article on which you have chosen to write your position paper, but you are welcome to refer to additional sources if you choose.

Specific Requirements for the Position Paper

- Papers should be a **maximum** of two typed, double-spaced pages in length. Attach a cover page to the front of your paper that includes your name, date, and a reference to the target article. Include an additional reference page if you have cited papers other than the target article. Please use 12-point font.
- You need not cite the target article in your position paper because it is understood to be the focus of your discussion. However, you should follow proper referencing procedures for other articles. You should consult the APA manual, or web-based resources (e.g., http://library.nmu.edu/guides/userguides/style_ap.htm#top) for proper referencing procedures.

Referencing and Citing the Work of Others *(developed originally for Psych 3vv3 by Aimee Skye; revised by Bruce Milliken)*

When you are writing position papers, keep in mind that we're looking for you to develop your own thoughts about issues raised in the target article. To demonstrate this originality in your thinking it is imperative that you use your own words/language rather than regurgitating that of others. Simply put, if your paper includes a great deal of direct quoting or simple paraphrasing of sentences from the article, you will not have conveyed an understanding of the content. Therefore, direct quotes and paraphrasing of specific sentences or portions of text from the article should be used only when necessary.

If you do decide to quote or paraphrase something directly from an article, you should follow proper procedures, which the remainder of this document describes. To illustrate these techniques, all examples described below will be based on the following direct quote from an article entitled "Perceived consequences of risky behaviors: Adults and adolescents" by Beyth-Maron, Austin, Fischhoff, Palmgren & Jacobs-Quadrel (1993):

"Decision theory specifies five general steps to be taken in making any decision: (a) identify the possible options; (b) identify the consequences that might follow from each option; (c) evaluate the desirability of each consequence; (d) assess the likelihood of each consequence, should each action be taken; and (e) combine these steps according to a logically defensible decision rule."

Paraphrasing in Your Own Words

You have only two choices when referring to the work of others in your own writing. First, you can paraphrase the ideas and information (as illustrated below) using your own words. Many students struggle with knowing what is and is not considered "paraphrasing", so there are examples and information below to demonstrate the "boundaries" in paraphrasing.

1. The proper and only way to paraphrase someone else's text is to use your own words to describe the ideas and information:
e.g., Beyth-Maron et al (1993) note that, according to decision theory, the decision-making process involves five consecutive stages. Specifically and listed in order these are: identifying the available decisions and their consequences, determining how attractive each consequence is and then how likely each consequence is to occur, and finally using a rational decision rule to consider and evaluate all of this information.
2. Keeping the text verbatim, but simply altering its original order is NOT paraphrasing:
e.g., *There are five general steps to be taken in making any decision according to decision theory: (a) identify the possible options; (b) identify the consequences that might follow from each option; (c) evaluate the desirability of each consequence; (d) assess the likelihood of each consequence, should each action be taken; and (e) combine these steps according to a logically defensible decision rule (Beyth-Maron et al, 1993).*
3. Adding some words like "The author states that" and then reproducing the rest of the text verbatim is NOT paraphrasing:
e.g., *The author notes that decision theory specifies five general steps to be taken in making any decision: (a) identify the possible options; (b) identify the consequences that might follow from each option; (c) evaluate the desirability of each consequence; (d)*

assess the likelihood of each consequence, should each action be taken; and (e) combine these steps according to a logically defensible decision rule (Beyth-Maron et al, 1993).

4. Simply deleting portions of text from someone else's words is NOT paraphrasing:
e.g., Decision theory specifies *five steps in making* any decision: (a) identify *the options*; (b) identify *the consequences of each option*; (c) *evaluate each consequence*; (d) assess the *likelihood of each consequence*; and (e) combine *these into* a logically defensible decision rule (Beyth-Maron et al, 1993).
5. Simply substituting synonyms for some of the words in the original text is NOT paraphrasing:
e.g., Decision theory specifies five *universal* steps to be taken in making any decision: (a) identify the *potential* options; (b) identify the consequences that might follow from each option; (c) evaluate the *attractiveness* of each consequence; (d) assess the *probability* of each consequence, should each action be taken; and (e) combine these steps according to a logically defensible decision rule (Beyth-Maron et al, 1993).

If you are paraphrasing text from a source, you must include a parenthetical reference to the source somewhere in your written text (although you can omit these types of citations of the focal article in your position papers). There are essentially two methods for including this parenthetical citation:

- Embed the authors' names directly in the text and include the publication date in parentheses:
e.g., Beyth-Maron et al. (1993) note that, according to decision theory, the decision-making process involves 5 consecutive stages...
- Place the authors' names and the publication date all in parentheses at the end of the text:
e.g., According to decision theory, the decision-making process involves 5 consecutive stages. Specifically and listed in order these are... and finally using a rational decision rule to consider and evaluate all of this information (Beyth-Maron et al., 1993).

Direct Quotations

If you are referencing the work of others, and do not paraphrase the information and ideas in your own words, you must reproduce the text verbatim, enclose it in quotation marks and follow it with a reference to the source in parentheses:

e.g., "Decision theory specifies five general steps to be taken in making any decision: (a) identify the possible options; (b) identify the consequences that might follow from each option; (c) evaluate the desirability of each consequence; (d) assess the likelihood of each consequence, should each action be taken; and (e) combine these steps according to a logically defensible decision rule." (Beyth-Maron et al., 1993).

Given that space is limited in your paper, you should be very conservative in what and how much text you quote (or paraphrase).