

Summary, Paraphrasing, and Synthesis

Tutorial 4
ENV201

These materials were created for educational purposes by the course instructor, Professor Tenley Conway.

Summary: Strong or Plagiarism

Original: The study of Wakefield (Wakefield 1998), linking MMR vaccination with autism, has been recently fully retracted (The Editors of The Lancet 2010) as Dr. Wakefield has been found guilty of ethical, medical and scientific misconduct in the publication of the paper; many other authors have more-over demonstrated that his data were fraudulent (Flaherty 2011). A formal retraction of the interpretation that there was a causal link between MMR vaccine and autism has already been issued in year 2004 by 10 out of the 12 original co-authors (Murch 2004).

Student's Use of Source: For example, the famous Wakefield study connecting MMR vaccination with autism has been recently fully retracted, and the author has been found guilty of ethical, medical and scientific misconduct. Furthermore, many authors have demonstrated that his data were fraudulent.

Some Key Terms

(with thanks to “OWL Purdue”)

Quotation:

- ▶ must be identical to the original, using specific words in quotation marks.
- ▶ every word must match the source document and must be attributed to the original author.

Paraphrase

- ▶ involves putting a passage from source material into your own words.
- ▶ must be attributed to the original source.
- ▶ usually shorter than the original passage, taking a somewhat broader passage from the source and condensing it slightly.

Summary

- ▶ involves putting the main idea(s) into your own words, including only the main point(s).
 - ▶ must be attributed to original source.
 - ▶ significantly shorter than the original, taking a very broad overview of the source material.
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Paraphrase and Summary

Paraphrase is:

- ▶ your own rendition of essential information and ideas expressed by someone else, presented in a new form.
- ▶ one legitimate way (when accompanied by accurate documentation) to borrow from a source.

Summary is:

- ▶ a shorter restatement than paraphrasing.
 - ▶ With thanks to “OWL Purdue” for this definition



How to Paraphrase or Summarize

- ▶ Reread the original passage until you understand its full meaning.
- ▶ Set the original aside, and write/type your paraphrase or summary on a piece of paper.
- ▶ Write a few words below your paraphrase/summary to remind you later how you think you'll use the material.
- ▶ Check your rendition with the original to make sure that your version accurately expresses all the essential information in a new form.
- ▶ Rewrite it again without looking at the original, changing as many words as possible.
- ▶ Use quotation marks to identify any unique term or phraseology you have borrowed exactly from the source.
- ▶ Record the source (including the page) in your notes so that you can credit it easily if necessary.

Why Paraphrase and Summarize?

- ▶ Forces you to critically read and develop a full and deep understanding of the source material.
- ▶ Helps you develop your own vocabulary.
- ▶ Allows you to participate in the scholarly conversation with your own voice, without requiring you to contribute something completely new.



Synthesis

- ▶ Involves combining two or more summaries, in a meaningful way
- ▶ “synthesis” commonly refers to writing about printed texts, drawing together themes or traits that you observe in several of those texts
- ▶ organize the material from each text according to those themes or traits, rather write about each text separately.

▶ From Drew University Online Resources for Writers

Paraphrasing

Original: Effectiveness against measles was investigated in three cohort studies (Marin 2006; Marolla 1998; Ong 2007). One cohort study (Marolla 1998) evaluated the effectiveness of MMR vaccination in preventing clinical cases of measles in children aged 18 to 90 months from several local health agencies in Rome, Italy (n = 2745). Vaccination was performed with three different commercial MMR vaccines, two containing both Schwarz strain (Pluserix and Morupar) and one other prepared with Edmonston-Zagreb strain (Triviraten). Vaccines effectiveness was calculated by using the following formula $[1 - (\text{measles incidence among vaccinated} / \text{measles incidence among unvaccinated}) \times 100]$. Effectiveness (one dose) was estimated to be 97% (95% confidence interval (CI) 88 to 99) in the Morupar study arm, whereas no measles cases were found among Pluserix recipients. Effectiveness was comparably high (95%; 95% CI 90 to 98) when Triviraten was administered.

Paraphrasing: Strong or Weak

- ▶ **Example 1:** Demicheli, Rivetti, and Di Pietrantoj have investigated effectiveness against measles. They evaluated the efficacy of MMR vaccination in preventing clinical cases of measles in kids between the ages of 18 to 90 months from a number of local health agencies in Rome, Italy. They observed that vaccination was performed with three different commercial MMR vaccines, two of which contained the Schwarz strain (Pluserix and Morupar) and one of which contained the Edmonston-Zagreb strain (Triviraten). The vaccines' efficacy was calculated by using a complex formula. They determined that effectiveness was approximately 97% in the Morupar study arm, whereas it was 100% in Pluserix recipients. Effectiveness was about 95% with Triviraten.

Paraphrasing: Strong or Weak

- ▶ **Example 2:** Demicheli, Rivetti, and Di Pietrantoj (2012) report on a cohort study that assessed the efficacy of MMR vaccinations against measles in 2745 children between the ages of 18 and 90 months. Three different vaccines were administered, two with the Schwarz strain (Pluserix and Morupar) and one with the Edmonston-Zabreb strain (Triviraten). Calculating effectiveness as $[1 - (\text{measles incidence among vaccinated} / \text{measles incidence among unvaccinated}) \times 100]$, the study found Pluserix was 100% effective, while Morupar was 97% and Triviraten was 95% (Demicheli et al. 2012).

Summary: Strong or Plagiarism

Original: Currently, this is the only review covering both effectiveness and safety issues of MMR vaccines. . . . The study of Wakefield (Wakefield 1998), linking MMR vaccination with autism, has been recently fully retracted (The Editors of The Lancet 2010) as Dr. Wakefield has been found guilty of ethical, medical and scientific misconduct in the publication of the paper; many other authors have more- over demonstrated that his data were fraudulent (Flaherty 2011). A formal retraction of the interpretation that there was a causal link between MMR vaccine and autism has already been issued in year 2004 by 10 out of the 12 original co-authors (Murch 2004).

Student's use of source: The only extant study of both the effectiveness and safety of MMR vaccines notes that high profile research presenting a causal relationship between MMR vaccine and autism has recently been retracted (Demicheli et al. 2012).

Synthesis: Strong or Weak?

Example #1 The issue of potential impact on species richness under potential climate change conditions has largely been examined in alpine regions (Moen et al. 2008). Furthermore, a paper examined potential outcomes of species richness in Europe (Thuiller et al. 2006). However, the boreal forest of North America is also receiving attention in modeling distribution of tree species (McKenney et al. 2007). In addition, vegetation changes were modeled for northern Alaska in relation to climate change conditions (Euskirchen et al. 2009).



Synthesis: Strong or Weak?

Example #2 The potential damage to photosynthetic capacity by ultraviolet radiation (UVR) can happen in a variety of ways. UVR can damage proteins and nucleic acids by denaturing the bonds within the structures. It also has the capacity to affect chlorophyll, which is essential to photosynthesis, and even the cell walls of an organism (Hazzard et al. 1997). Chlorophyll production can be disrupted through indirect harm to the membrane of the chloroplast (Sobrino et al. 2008). Photosystem II (PSII) can be damaged by creating imbalances in energy throughout the photosynthetic apparatus because the organism cannot as effectively “assimilate energy absorbed through photochemical processes” (Sobrino and Neale 2007). Because the light reaction of photosynthesis, the step involving PSI and PSII, is essentially a series of electron transport mechanisms, if PSII is unable to use, or assimilate the energy absorbed into it, the reduction state of PSII compared to the rest of the photosynthetic apparatus is affected as charge builds up. Additionally, when UVR reacts with oxygen it can produce various radicals such as OH⁻ which are harmful and can cause damage to cellular structures (Hazzard et al. 1997). The mechanisms by which UVR can inhibit photosynthesis are numerous and this makes it particularly harmful.