

Concessions and counter-arguments in science writing:

- A concession makes your argument stronger—that is, rather than acting like another side of your argument does not exist, you address it and “debunk” it, with a counter argument.
 - **Science is not in vacuum.**
 - **Not just making a claim, you’re holding your position against another**
- Conceding to some of your opposition’s concerns demonstrates respect for their opinion.
 - **objective position**
 - **audience may share the same concerns.**
- Making concessions also demonstrate your ability as a writer by showing that you have researched and considered the argument from multiple perspectives in order to come to an informed decision.
 - **informed unbiased position**
 - **No agenda**
- Limit your concessions, otherwise the counterarguments and concessions start to become your argument. Also, watch out for fallacies—sometimes it might be tempting to make a bad analogy or to oversimplify in order to “dismiss” the other side.
 - **U Texas oversimplified concessions, citing Cornell U study by omitting important facts.**
 - **Highlighting that their research is more current (1 year), whereas Cornell U spent ten years collecting/ studying data.**

Better Design and Oversight Will Safeguard Nuclear Plants Against Natural Disasters and Terrorism

Opposing Viewpoints Online Collection, 2013

Until March 11 [2011], with the 25th anniversary of the Chernobyl accident [the April 26, 1986, explosion and meltdown at a nuclear power plant in the Ukraine] approaching—and memories of that disaster receding—safety concerns no longer appeared to be the killer argument against nuclear power they once were. Instead, another fear—of climate change—looked like it might be driving a "nuclear renaissance" as states sought carbon-free energy sources. But the ongoing crisis at Japan's Fukushima Daiichi Nuclear Power Station [a meltdown brought on by an earthquake and tsunami on March 11, 2011] will return safety to the forefront of the nuclear power debate. Even the most ardent industry advocates now recognize that the unfolding crisis inside two reactors there—shown on live television and beamed around the world—has left the future of their industry in doubt. Nevertheless, the case for nuclear power remains strong. All forms of energy generation carry risks. Fossil fuels, which (for the time being at least) are nuclear energy's principal rival, carry the risk of catastrophic climate change. And as we're seeing in Japan, we haven't eliminated all the dangers associated with nuclear power, even though accidents are few and far between.

Renewable Energy Sources Should Replace Nuclear Power Entirely

Opposing Viewpoints Online Collection, 2017

A nuclear power station is about as useful in solving the dilemma as a 20th-century nuclear weapon is in ending a 21st-century guerrilla insurgency, because a ground-level energy revolution is taking place. The old regime of large, centralized power plants is being replaced by a smart, efficient and widely distributed network, powered by increasing amounts of renewable energy. Carrington argues that nuclear power entails considerable risk and expense. While acknowledging nuclear power as a remarkable development of the twentieth century, the author anticipates that more efficient and safer renewable energy sources will become feasible in the twenty-first century. Carrington bemoans the significant economic burden that taxpayers incur whenever the nuclear power industry attempts and fails to establish a new plant. The author identifies energy sources that can provide more energy for less money than nuclear power. Carrington also warns that the increasingly likely closures of power plants will present new security concerns that must be addressed.

1. Does the concessions make the central argument(s) stronger? How might you modify the concessions?
2. Does the writer address the opposing concerns in a way that makes the audience respect their position? Is the writer objective?
3. Does the writer appear to have researched the issue from multiple perspectives? How?
4. Does the counter arguments debunk the opposing position? Explain.

Things to Consider When Writing for the Intended Audience¹

- What content should I include? What content should I exclude?
- What level of language to use?
- What writing plan to use?
- What relationship should I establish with my audience?

The following texts are summaries of two different articles. The articles report on the same subject and the same experience, and are written by the same scientists. However, the scientists have greatly changed their textual presentations to appeal to different audiences: a primary and a secondary audience.

(1) The Summary Statement of “A Systematic Assessment of Early African Hominids”:

A large sample of Pliocene fossil hominid remains has been recovered from the African sites of Hadar in Ethiopia and Laetolio in Tanzania. These collections, dating approximately between 2.9 and 3.8 million years ago, constitute the earliest substantial record of the family Hominidae. This article assesses the phylogenetic relationships of the newly discovered fossil hominid and provides a taxonomy consistent with that assessment.

(2) The Summary Statement of “LUCY: A 3.5 million-year old woman shakes man’s family tree”:

The identification of a new species, ancestral to humankind, did not come easily. Donald Johanson and Tim White spent thousands of hours in painstaking detective work, poring over the superlative fossils that Johanson had unearthed in the Ethiopian desert. The two scientists knew their work would be controversial because it challenged the generally accepted family trees of *Homo sapiens*.

Questions:

5. What would be a main idea of summary number one? Who would be interested in this subject?
6. What would be a main idea of summary number two? Who would be interested in this subject?
7. What is some support backing up the main idea of summary number one?
8. What is some support backing up the content of summary number two?
9. What type of word choice is used in summary one and in summary two? How do they differ?
10. What type of word order or sentence does both text employ? Passive voice construction usually implies a focus on what was done, whereas active voice is emphasizing the doer of the action.
11. What type of relationship is set between authors and audience in summary one? How does the tone differ in summary two?

¹ http://ctl.byu.edu/sites/default/files/docs/critical_reading_mini-lessons/51-Determining_An_Authors_Intended_Audience.pdf