**Using Quotations and Paraphrasing**

**Pre-Class Activities**

**Using Quotations in (Journalistic) Science Writing**

Quotations appear in almost every good news story because they add an extra level of interest for the readers. However, as you have learned throughout this course, writing concisely and telling a story as simply as possible is of vital importance. For this reason, a ‘good story’ only ever contains ‘good quotes’; simply filling space with quotes will put your readers off, rather than encouraging them to absorb the tale you are telling.

As ever, when writing you should try to make your story accessible to the audience to which it is targeted. For example, suppose you had spent three years in a genetics lab and discovered how a gene functioned to protect fruit from pests. When it came to communicating your research, you would write two very different articles to a specialist science magazine and a newspaper that would be read by more diverse audiences.

However, in both cases, you would likely add quotations to help make the article more engaging. Although you might include more jargon in the specialist version, there is a fairly standard set of guidelines for choosing quotes that you would be able to apply to both articles.

In general, and in order of importance, the following elements will all be present in a good quote:

1. It will be attributed to a **relevant** source with something meaningful to say.
2. The information contained in it will **add to**, **expand, and/or personalize** the story.
3. It will be easy to understand, even if it contains **comparisons/descriptions.**
4. Although not always the case, impact tends to be higher if the word count is **small**.

In contrast, the following elements tend to be present in a bad quote:

1. The information contained in it is **boring, redundant, repetitive, contains jargon, overly complex words,** or is **incoherent** and hard to follow.
2. It is taken from a source that was **not** introduced earlier in the article, or from a non-relevant source with nothing of importance to add to the story.
3. It is **not concise** and/or is hard to interpret.

**Question 1 (5 marks)**

Read the five quotes provided by different sources, all of which apply to the scenario below. Your task is to decide whether each one is worthy of inclusion in a news-based article. *Hint: Base your decision on some of the elements listed above that determine whether a quote is good or bad (or somewhere in between). Show your decisions by writing either “Good quote” or “Bad quote” next to each one (1 mark each).*

**Scenario:** You are writing a **facts-based article for a popular nature magazine** about the recent discovery that fertilizer is responsible for destabilizing grassland communities and negatively impacting ecosystem services all over the world.

**A:** “This is really worrying news because so many different species rely on grasslands, and of course, they also sequester carbon and nitrogen that is fixed from the atmosphere,” said wildlife enthusiast Jonny Nolan.

**B:** “Some of these grasslands are just stunningly beautiful,” said tourist, Claire Commins.

**C:** “Given that the same patterns found in the Tanzanian Serengeti are also seen in the alpine grasslands of the tundra, I think it is safe to suggest that fertilizer really is having a very damaging effect,” said Lily Reilly, an environmental scientist.

**D:** “Fertilizer is just, well… I mean, they are all just bad, you know… bad news. But then again, farmers know how to farm so people from the towns shouldn’t tell them, you know… I just don’t think they should all get involved,” said local farmer Alex Gist.

**E:** “My issue with these correlational data is that they are all observational in nature. Studies without *bona fide* roots in controlled, manipulated experiments have produced a plethora of falsely interpreted results previously,” said statistician Alanna O’Sullivan.

**Question 2 (5 marks)**

Read the five quotes provided by different sources, all of which apply to the scenario below. Your task is to rank the five quotes in order from best to worst. *Hint: Base your decision on some of the elements listed above that determine whether a quote is good or bad (or somewhere in between).*

**Scenario:** You are writing an **article for a science journal** about the importance of a recent breakthrough that will allow more efficient determination of protein structures.

**A:** English teacher Sam Mendes said: “I think this could be one of the biggest impacts we see from a science discovery in the last decade or so, purely because it has applications in so many other important industries and research themes, such as medicine, drug development, biochemistry and engineering, and as always, I think it is very important that we give due consideration to the impact a science breakthrough can have on as many people as possible.”

**B:** Science communication instructor Matthew Willis said: “This is truly ground-breaking stuff. It will mean we generate much faster and more accurate data to help drug development.”

**C:** Physiotherapist Justin Dylan said: “Let us ponder for a moment how this development will provide immeasurable benefit to a skyrocketing population. Such a grandiose accomplishment is sure to allow more targeted research to be conducted by our brightest and best young medical researchers, whose ability to produce specific medicinal treatments for problematic protein-affected disorders is already second to none.”

**D:** Undergraduate physics society treasurer Suzy Wang said: “The LCP Injector that the researchers developed will help place the protein crystals where they need to be at exactly the right speeds to allow far more accurate structural data to be generated. It will greatly help related research.”

**E:** Government science adviser Toby Hamilton said: “The real triumph was creating the LCP injector, which will ultimately help generate structural data that is much more accurate.”

**Question 3 (5 marks)**

This question is designed to give you further practice in selecting certain quotes for use in your writing. Read the following introduction to a science-based news story, and then consider the five quotes and descriptions that appear in the table below it. Your task is to correctly match each quote with the description of it as if you were considering why it should or should not be included in the news-story introduction below:

***Bees are worth billions of dollars to the global economy thanks to the pollination service they provide to farmers growing food crops.***

***That is according to a new study in which researchers compared crop yield when bees were and were not permitted to access flowers.***

***Crops such as canola, which are being grown in greater amounts than ever before due to a demand for biofuel, produced almost 40% more yield when pollinated by bees than when they were pollinated by wind.***

***Professor Stewart, lead researcher on the project, said: “…”***

**Table 1: Quotes (numbers 1, 2, 3, 4 and 5) that must be matched to descriptions (A, B, C, D and E).**

|  |  |
| --- | --- |
| **Quote (all taken from the lead researcher, Prof. Stewart)** | **Description of quote** |
| 1. “Working with bees is sometimes difficult but important.” | A. Good quote. |
| 2. “Bees improved the yield by 39.4%.” | B. Redundant quote. |
| 3. “For a long time we looked at different flower types as being important. They are more efficient than wind though.” | C. Jargon-heavy quote. |
| 4. “This shows why we should all take care of our bees.” | D. Boring quote. |
| 5. “Canola is a good model species for these mixed-effects, randomized-plot experiments because it is so economically important and it can be cultivated easily.” | E. Incoherent quote. |

**The Importance of Paraphrasing**

Sometimes you will have access to a quote from a relevant source but there will be a problem with it that prevents you using it word for word. For example, perhaps the quote contains too much jargon for your audience, or maybe it makes a good point but is too long-winded. In either of these instances, it would be a shame not to use the information in the quote if it could improve the quality of your article, but using the quote itself would have the opposite effect. So what do you do?

The answer is that you should **paraphrase** the information. You can think of this loosely as citing it in the way you would in a lab report. In other words, you are going to attribute it to the source, but only include the information that is relevant to your audience. For example, imagine Prof. Stewart provided the following quote:

**“We had the feeling that crops would be considerably less valuable if they were solely wind-pollinated, but it had never been shown experimentally before. Now we know for sure just how valuable these bees are in terms of boosting yield, we hope it will give us the power to convince governments to step up their efforts of conserving them. The bees help us, so we need to repay the favour!”**

Rather than using the (whole) quote, which contains admittedly interesting information in a long-winded, rather boring way, you could paraphrase it like this:

**Professor Stewart explained that she hopes governments will help conserve bees now it has been shown how valuable their pollination service is.**

Because the second part of the original quote is concise and interesting, you could also think about including it after your initial paraphrased sentence, like this:

**Professor Stewart explained that she hopes governments will help conserve bees now it has been shown how valuable their pollination service is. She said: “The bees help us, so we need to repay the favour!”**

**Re-ordering Transcripts (and Quotes)**

When you interview somebody as a source for your article, you will probably produce a transcript of information ordered in a way that does not tell the most interesting story possible; in spoken conversations about complicated subjects people rarely explain themselves smoothly or without backtracking.

As a result, you will often have to re-order things when incorporating quotes into your article. This might mean paraphrasing parts of a quote and including other parts of it as a direct quote (as you have gained some experience with), or it might mean swapping the order of quotes so that the story follows a more logical development. Although this is a common, and necessary action, you must be careful not to take quotes out of context when doing this. Make sure that when you read the original transcript and compare it to the re-ordered quotes in your article, you are satisfied that you have not misrepresented your source in any way!

**Question 4 (6 marks)**

For each of the following six quotes (**Q1-Q6**), your job is to decide whether:

**(A**) The quote should be incorporated into an article as a quote (exactly as it appears here), or (**B**) all of the quoted information should be paraphrased, or (**C**) part of the quote should be used as a quote (exactly as it appears here), and the rest of the information should be paraphrased (1 mark each). *Hint: Show your decisions by stating whether each quote (****Q1-Q6****) should be treated as an* ***A****,* ***B****, or* ***C****.*

**Q1:** “We worked on average 12 hours per day for six months before we made any sort of breakthrough but we were always hopeful that we were on the right track because we had occasional highlights that made us believe there was mileage in the project even when things were largely unsuccessful,” said Prof. Stewart.

**Q2:** “This is such a fantastic discovery! We’ve finally shown what so many people thought would be true,” said Prof. Stewart.

**Q3:** “The netting procedures were tough. We used XF20 specialist netting equipment to make sure that no bees could get to the flowers we were exposing only to the wind, but a few were able to get through, which meant we lost a whole season of the project before we got the right ones,” said Prof. Stewart.

**Q4:** “What was really great was that we estimated there were a lot more bees than we had expected to see, based on other reports. Lots of research led us to believe that there might only be 5 – 10 colonies in each field but our data makes it look as though there are probably as much as 10 times that number, which is great news,” said Prof Stewart.

**Q5:** “The real goal now must of course be to lobby governments to make laws that ban the use of neo-nicotinoidal agents,” said Prof. Stewart.

**Q6:** “Sometimes conservation efforts are hard to find support for, but when there is a financial benefit, things usually move quicker,” said Prof. Stewart.

**Question 5 (4 marks)**

Read the transcript excerpt below, which contains four sentences spoken by Prof. Stewart when she answered a reporter’s question. Your task is to paraphrase this material effectively. *Hint: Try to be concise and accurate (2 marks), and look out for at least one part of the transcript that should be included exactly as it is, as a quote (2 marks).*

**Reporter:** Why should governments be concerned about neo-nicotinoid pesticides?

**Prof. Stewart:** “Well, there are a number of reasons that we should worry about the use of neo-nicotinoid pesticides, because these horrible pesticides… well, I suppose I shouldn’t say ‘horrible’, these strong pesticides are more potent than their older versions. LD-50 studies initially indicated that they were not toxic to bees, but that unfortunately myopic view led many famers to believe that they were safe because they wouldn’t kill bees when applied to crops that they visited for pollen. But that’s not the whole story, and the bees know it too well. You see, when bees are exposed to large volumes of these pesticides, their nervous systems can become overwhelmed, and although they don’t die, they then start doing weird things that they wouldn’t normally do, like flying off and eating pollen instead of returning it to the hive to support the larvae, which then suffer from a lack of food as a result.”