**Using Comparisons and Descriptions**

**Introduction**

There are a variety of techniques that can be used to describe and compare, but selecting an appropriate one is especially important when communicating science, because very often we need to describe experiments, phenomena and/or situations of which our audiences have no experience.

More generally, using comparisons and descriptions selectively in your writing will also make it easier and more interesting to read. When done effectively, it will provide an extra level of engagement with your readers, which is useful if you have to use a certain amount of jargon or if you simply want to make your article more accessible. For example, if you have to explain how cell receptors work to an audience without specialist knowledge, it might be useful to describe them as ‘mini sorting machines,’ that ‘ensure only the right deliveries are made to specific cells.’

Whenever you use a description or comparison in your writing, try to make sure that it is succinct, simple to understand/visualize, appropriate for your audience, and – most importantly of all – an accurate description of the more complex relationship you are trying to explain. For example, ‘winning that science scholarship’ is **not** ‘like winning the lottery,’ because there was no skill involved in the latter. Instead, it is more ‘like getting your dream job.’

**Similes** actively explain a comparison for a reader (e.g. ‘smaller rivers branch into bigger ones like blood vessels branching into major veins and arteries), whereas **metaphors** turn one object into another, thereby leaving the reader to make the connection (e.g. the typical student’s study area is a disaster zone). These subtle differences are more important than you might think: **Similes**, if chosen appropriately for the audience at which they are aimed, should always be understood, whereas **metaphors** can *‘****open the door’*** to personal interpretations.

**Some examples**

Notice the subtle difference in the following similes and metaphors:

1S) These elements react as fast as lightning.

1M) This reaction is a lightning bolt.

2S) Sitting through that lecture was like watching paint dry.

2M) That lecture was a snorefest.

3S) The two species are as different as night and day.

3M) The two species are black and white.

Note how the metaphors could be interpreted differently to how they are intended (especially 3M, which is supposed to imply the two species are very different from one another, but you could see how people might think the two species are coloured black and white instead).

**Choosing When to Use Similes and Metaphors**

It is very important to gauge your audience when using comparisons and descriptions; a simile or metaphor might be technically great, but if it means nothing to the people reading your article, it will only confuse and frustrate. For example, there is no point in telling the general public in Canada that: Students trudging to their 9:00 am lectures are “as sleepy as brown bats.” It is true that brown bats are among the sleepiest creatures in the animal kingdom, but it is highly unlikely that most people know this.

**Things to Avoid**

Firstly, the **overuse** of descriptions and comparisons typically makes things more confusing and (almost certainly) less concise, so try not to use too many in your writing.

Secondly, **‘dead’** descriptions and comparisons are of little use because they have become so common in our language (and thus, they have lost their impact), and because their original meaning has been lost. For example, telling the audience that the alpha male gorilla in your study is ‘as bold as brass,’ could be problematic. Scholars believe that the simile comes from the 18th century, and that it was used then to describe people that had been executed publically after being found guilty of serious crimes; brass was deemed to be a cheap, vulgar metal, so the simile was used to suggest the executions had happened cheaply, and violently. This is almost certainly not what you want to say about your confident gorilla looking after his tribe in the beautiful misty mountains.

Thirdly, comparisons can be **inappropriate** for a whole variety of reasons. For example, they might be offensive in some way (maybe they are too graphic, rude and/or unsuitable for certain sexes/races in specific contexts). An example of this would be the following, which appeared in a research blog post a few years ago: ‘Mr. X may still be recovering from stomach surgery, but he hasn’t lost his appetite for research.’

Finally, **mixed** comparisons should be avoided at all costs. These include two or more unlinked descriptors in the same sentence, which makes the meaning very difficult to interpret. A good example of this comes up in the accompanying video resource…

------------

**Video Resource**

For a recap and for some extra information about using comparisons and descriptions effectively in your writing, please watch Grammar Squirrel’s [video](https://www.youtube.com/watch?v=HCDUiIB9ID8) on the UBC Science Writing [YouTube Channel](https://www.youtube.com/channel/UCvynvmsn_NTlS9lc8cH-OFw).

We then suggest you complete the quick quiz (below) to see whether you have mastered some of the important skills relating to using comparisons and descriptions.

-------------

**Comparisons and Descriptions Quick Quiz**

**1)** Are the following sentences examples of metaphors or similes (4 marks)?

**i)** Designing the Grammar Squirrel videos was no walk in the park.

**ii)** Having said that, it was a lot of fun, like working on a group project with enthusiastic colleagues.

**iii)** However, in terms of whether the videos are useful for students, the proof will be in the eating.

**iv)** And we won’t be served that dish until they have provided lots of feedback.

**2)** Rank the following comparisons in order from best to worst and briefly justify your decisions (4 marks). *Hint: Think about the factors that make comparisons effective [and the things that you should avoid] when establishing an order.*

**A)** Waiting around before an exam is like being on ‘Death Row’.

**B)** Receiving a good grade after revising hard is like earning a deserved promotion.

**C)** Being made to work in a group with unhelpful people is like being allocated the only broken seat in the movie theatre.

**D)** Getting an unfair appraisal from your tutor is like being picked last as the uncoordinated kid in gym class.

**3)** Which of the following two comparisons is the most effective (1 mark)? Why (1 mark)?

Random genetic mutations are very common but the chance that any one unique mutation will lead to a very favourable result is the same as…

**A)** Being elected as president of the United States after a successful career in politics

**B)** Stumbling upon buried treasure worth millions of dollars in your garden

---------------

**Quick Quiz Answer Key**

To check your answers and see whether you are now a wizard with comparisons and descriptions, access the answer key **below.**

**1)** Are the following sentences metaphors or similes (4 marks)?

**i)** Designing these Grammar Squirrel videos was no walk in the park **METAPHOR**

**ii)** Having said that, it was a lot of fun, like working on a group project **SIMILE**

**iii)** However, in terms of whether the videos are useful to students, the proof will be in the eating **METAPHOR**

**iv)** And we won’t be served that dish until they have completed all the surveys **METAPHOR**

**2)** Rank these comparisons in order from best to worst (4 marks). *Hint: Think about the factors that make comparisons effective [and the things that you should avoid] when establishing an order.*

**FIRST/BEST: B)** Receiving a good grade after revising hard is like earning a deserved promotion [**Easy to visualize both, succinct, appropriate, same relationship**]

**SECOND: C)** Being made to work in a group with unhelpful people is like being allocated the only broken seat in the movie theatre [**Easy to visualize both, not as succinct as B, appropriate, same relationship (you have no control over either)**]

**THIRD: A)** Waiting around before an exam is like being on ‘Death Row’ [**Easy to visualize both, succinct, inappropriate (‘Death Row’ is offensive), not the same relationship but you have no control over either so linked in some way**]

**FOURTH/WORST: D)** Getting an unfair appraisal from your tutor is like being picked last as the uncoordinated kid in gym class [**Relatively easy to visualize both, not succinct (and ‘appraisal’ and ‘uncoordinated’ are wordy), offensive (no-one wants to be picked last, especially if they can’t help being uncoordinated) not the same relationship at all (your appraisal was not deserved, but if you are uncoordinated there is at least a reason why you are picked last in gym class)**]

**3)** Which of the following two comparisons is the most effective (1 mark)?

Random genetic mutations are very common but the chance that any one unique mutation will lead to a very favourable result is the same as…

**A)** Being elected as president of the United States after a successful career in politics

**B) Stumbling upon buried treasure worth millions of dollars in your garden**

Why (1 mark)?

**Mutations occur randomly (by chance), which is similar to you ‘stumbling’ upon something good (treasure) without making any effort to find it. You have to work hard to advance up the political ladder and become the President (there is nothing random about that path).**

------------