

# Introduction to English for Scientific Communication:

## Homework 4 Answers

**Part 1.** Each of the sentences below contains the misuse of at least one pronoun. Find it (them) and fix the problem(s). Some sentences may contain unrelated problems, fix these as well.

Q1. This analysis is analogous ~~to the one~~ in Fujisawa's work.

A1. This analysis is analogous to that in Fujisawa's work.

Q2. This process is referred to as  $\beta$ -diffusion, ~~of which~~ time scale is of order  $\epsilon^{-1}$ .

A2. This process is referred to as  $\beta$ -diffusion. Its time scale is of order  $\epsilon^{-1}$ .

Q3. The function  $G$  is very important in our model, which is defined by  $G = \int d\vartheta F$ .

A3. The function  $G$ , which is defined by  $G = \int d\vartheta F$ , is very important in our model.

Q4. We have ignored a small term coming from the asymmetry, but ~~it~~ would not change our conclusion.

A4. We have ignored a small term coming from the asymmetry, but its inclusion/including this term would not change our conclusion.

Q5. We then obtain the expression  $u = \int dx F(x) / [cx + g(x)]$ , where  $c$  is a constant. We discuss its value in Sec.2.

A5. We then obtain the expression  $u = \int dx F(x) / [cx + g(x)]$ , where  $c$  is a constant. We discuss the value of this expression in Sec.2.

**Part 2.** Use the words in the box to complete the sentences below. Note that each word is used only once.

|                        |
|------------------------|
| among    between    of |
|------------------------|

6. There is no discernible difference between the results from the two experiments.

7. The thermal velocity of the electrons is the largest velocity exhibited by the system.

8. In the past few decades, the concept of group selection has made a quiet comeback among evolutionary theorists.

**Part 3.** The sentences below contain uses of 'on the other hand' and 'on the contrary', some uses are correct and some uses are incorrect. Please read the sentence and select 'correct' or 'incorrect' to indicate if you think the phrase has been used correctly.

1. Andrew's scientific ideas are often interesting. On the other hand, they sometimes turn out to be wrong. ( correct )
2. My latest simulation results highlight the importance of the instability on the system dynamics. On the contrary, there are other processes that can also cause dynamic phenomena to occur. ( incorrect )
3. This paper proves the existence of the Higgs boson. On the contrary, the recent paper by Cowling presents a contradictory interpretation of the data. ( incorrect )
4. This method is very easy to apply to analyse the data. On the other hand, it will be difficult to quantify the systematic errors that its application will produce. ( correct )
5. The explanation for the difference in results between the two experiments is not complex. On the contrary, it is surprisingly simple. ( correct )
6. In Figure 1 we can see the different paths of the particles. On the other hand, Figure 2 shows the distribution of particle energy. (incorrect )

**Part 4.** Read and rewrite the sentences below as instructed.

1. Change the non-defining modifier in the sentence to a defining clause. What does this change imply for the meaning of the sentence?

The advice from my supervisor, which I chose to follow, led to some very exciting results.

Revised sentence: The advice from my supervisor that I chose to follow led to some very exciting results.

Meaning: In the first sentence, I followed all my supervisors advice. However, in the second sentence only followed some of my supervisors advice .

2. Change the defining modifier in the sentence to a defining clause. What does this change imply for the meaning of the sentence?

My collaborator Gibbons has developed a very exciting experimental technique..

Revised sentence: My collaborator, Gibbons, has developed a very exciting experimental technique.

Meaning: In the first sentence, I have many collaborators, but in the second I have only one collaborator.