

科技论文的阅读与写作

Course -3

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学院个人主页：

<http://sdcs.sysu.edu.cn/content/4989>



Outline of today's class

- Quickly going through: Why should you go to find a Lab ASAP?
- Course: word order

九月： Find your Lab

- Find the right supervisor
 - Who is my Mr./Mrs. **Right Supervisor** ?
 - First to ask yourself: **Ph.D?** **Overseas** or **Domestic?**
- Get started at early stage:
 - Do homework while preparing CV,
 - Submit your CV

Outline of today's class

- Quickly going through: Why should you go to find a Lab ASAP?
- Course: word order

Why word order matters?

Typical complaints of Referees

There were several sentences that I was simply unable to parse. I failed to work out what the subject was and what verb related to it, nor could I identify what adjective or what adverb modified what noun or verb. At times it was like trying to decipher a doctor's handwriting. I am of the opinion that one should be able at least to identify the various components of a sentence and how they relate to each other, even if one does not understand the precise meaning of each component.

Although it is well-structured, it is extremely difficult to read because of the somewhat labored English.

I was often only able to understand the logic of the sentence when I read the last word. The authors need to rearrange the components of their sentence so that the reader immediately understands the build up of the logic.

Which is better?

- **S1:** You are doing the course in your own time but at the expense of your department in order to learn English.
- **S2:** In order to learn English you are doing this course. The course takes place in your own time but at the expense of your department.
- Why?

Which sentence is the **least** readable?

Why?

- **S3:** English, although currently the international language of business, may one day be replaced by Spanish or Chinese.
- **S4:** Although English is currently the international language of business, it may one day be replaced by Spanish or Chinese.
- **S5:** English may one day be replaced by Spanish or Chinese, even though it is currently the international language of business.
- **S6:** English is currently the international language of business. However, it may one day be replaced by Spanish or Chinese.

Basic word order in English

- **Strict order** of English words in a sentence: Subject + verb + object + indirect object
- An example:
 - Researcher sent their manuscript to *the journal*.
- Japanese:
 - 研究者 は、 原稿 を ジャーナル に 送りました。
 - Researcher, manuscript journal to sent.
- **Key:** to keep subject, verb, direct object and indirect object **as close to each other** as possible.
 - Last week **the researchers** sent **their manuscript** to the journal for the second time.
 - * The researcher last week sent for the second time to the journal their manuscript.

Place the various elements in the most logical order possible

NO!

- *The figure shows*, for each curve, the throughput converges around the 3000th episode.

Need to break up the flow of the sentence.

Yes

- For each curve, *the figure shows* the throughput converges around the 3000th episode.

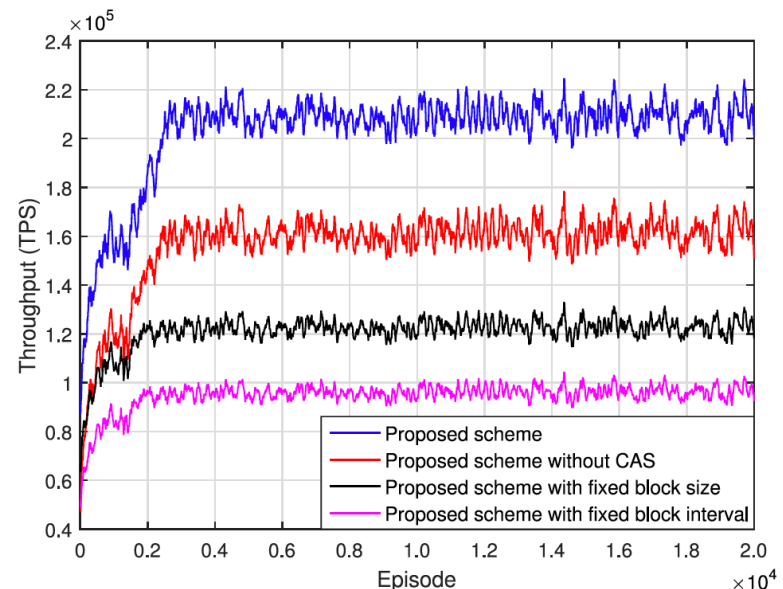


Fig. 5. Convergence performance of different schemes.

NO!

- It is important to remark that our components are of a traditional design.
However, we want to stress that the way the components are assembled is very innovative.

Yes

- *Although* our components are of a traditional design, the way they are assembled is very innovative.

Connect two sentences that have contrary perspectives using *Although*.

The information is only given at the end of the sentence.

NO!

- Working in this domain requires modifying the algorithms *as we are dealing* with complex parameters.
- Therefore, the rescaled parameters seem to be appropriate for characterizing the properties, *from a statistical point of view*.

The author immediately tells readers the point of view he wants them to assume.

Yes

- *Since we are dealing* with complex parameters, working in this domain also requires modifying the algorithms.
- Therefore, *from a statistical point of view*, the rescaled parameters seem to be appropriate for characterizing the properties.

Place the subject before the verb

- Key rule: **The subject must be placed before the verb.**

No !

- Were used several different methods in the experiments.
- With these values are associated a series of measurements.

Yes

- Several different methods were used in the experiments.
- A series of measurements are associated with these values.

Place the subject before the verb (cont.)

- **Key rule:** Say *what something is* before you begin to describe it.
- No !
 - Among the factors that influence the choice of parameters *are time and cost*.
 - Of particular interest *was the sugar transporter*, because..
 - Important parameters *are conciseness and non-ambiguity*.
- Yes
 - *Time and cost are* among the factors that influence the choice of parameters.
 - *The sugar transporter was* of particular interest, because...
 - *Conciseness and non-ambiguity are* important parameters.

Don't delay the subject

- What information should be placed **at the beginning of the first sentence?**
- Original **S1** and **S2**
- **S1:** *It is interesting to see that* x is equal to y.
- **S2:** *As a consequence of the preceding observations,* x is equal to y.
- Modified
- *Note that* x is equal to y.
- *Interestingly,* x is equal to y.
- *Consequently,* x is equal to y.
- X is *thus* equal to y.

Don't delay the subject (cont.)

- More examples

- **OK**

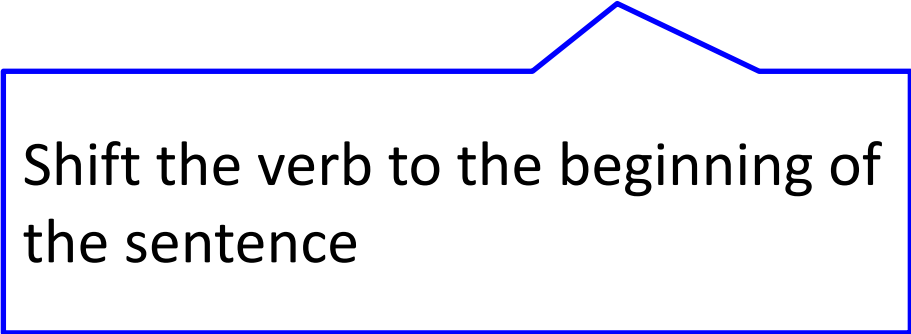
- It is possible that this is due to the poor performance.
- It is possible to do this with the new system.
- It is mandatory to use the new version.

- **Improved**

- This *may / might / could* be due to poor performance.
- This *can* be done with the new system.
- The new version *must* be used.

Keep the subject and verb close to each other

- Readers' attention is on **subject** and **verb**
- Original **S1**
- **S1**: *X,y,z and blabla* *are recorded* in the literature [5, 8, 19].
- Modified
- *There are generally* x,y,z and blabla [5, 8, 19].



Shift the verb to the beginning of the sentence

Keep the subject and verb close to each other (cont.)

- Original **S2**
- **S2**: People with a high rate of intelligence, and unusual ability to resolve problems, a passion for computers, along with good communication skills *are generally employed* by such companies.
- Modified
- (主动语态) Such companies **generally employ** people with a high rate of ...
- (被动语态) People with a high rate of intelligence **are generally employed** by such companies. *They must also have other skills including:* an unusual ability to ...

Readers are forced to **wait too long** to find out what the verb is, and thus delay important information.

九月： Find your Lab

- Why?
 - Some thoughts from being a referee yesterday
 - It is different if you conduct researches in your spare time,
 - supervised by a real researcher
 - If you are 佛系读书ing and 考试ing, so is the referee when he examines you
 - Cherish your Univ., because some students from non-top universities only sleep 5 hours to apply for your university.

Avoid inserting **parenthetical** information between the subject and the verb

- **Parenthetical information (?)** damages the fluency.
- **Parenthetical information, which is ...**, damages the fluency.

- **No!**

- The result, *after the calculation has been made*, can be used to determine Y.
- This sampling method, *when it is possible*, is useful because it allows...
- These steps (*owing to the difficulties in measuring the weight*) require some simplifications.

- **Yes**

- After the calculation has been made, the result can be used to determine Y.
- When this sampling method is possible, it allows us ...
- Owing to the difficulties in measuring the weight, these steps require some simplifications.

However, this rule should not be regarded as sacrosanct.

Don't separate the verb from its direct object

- Examples

- **No!**

- We can *separate*, with this tool, *P and Q*.

- We can *observe* from these values *a high cost*.

- **Yes**

- We can *separate P and Q* with this tool.

- We can *observe a high cost* from these values.

Locate **negations** near the beginning of the sentence

- **Negations:** *no, do not, does not, none, nothing etc*
- **Rule:** Never force the reader to **reconsider** or **reinterpret** what they have just read
- * Data regarding the training of a machine learning model and the initial settings for the model before preprocessing *were not available.*
- *No data were available* regarding ... and ... before
- Before preprocessing, *no data were available* regarding ...

Readers immediately understand the **central purpose** of the sentence.

Locate **negations** near the beginning of the sentence (cont.)

- More examples

We see sth **negative** is being said

- The number of times this happens when the user is online *is* generally *very few*.
- Documentation on this particular matter is almost *completely lacking*.
- * Consequently *we found* this particular type of service *not interesting*.
- This *rarely* happens when the user is online.
- There is *virtually* (事实上) *no documentation* on this particular matter.
- Consequently *we did not find* this particular type of service *interesting*.

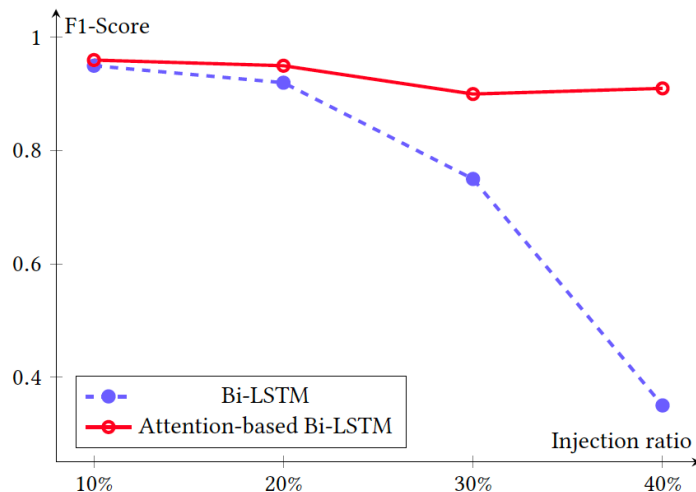
Grammar error !

Locate **negations** before the main verb but after auxiliary and modal verbs

- The word **not** should be placed before the **main verb** it is associated with.

Grammar error !
- * F1-Score *seems not* to be affected by the Injection ratio.
- F1-Score *does not seem* to be affected by the Injection ratio.

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This figure left refers to this paper:

Robust Log-Based Anomaly Detection on Unstable Log Data

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Yong Xu
Qingwei Lin
Bo Qiao
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Hongyu Zhang
University of Newcastle
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Yingnong Dang
Microsoft Azure
Redmond, USA

Figure 10: F1-Score of the attention model on synthetic HDFS dataset of unstable log sequences (the *NewTesting2* set)

Locate **negations** before the main verb but after auxiliary and modal verbs (cont.)

- **On the other hand**
- When verbs *have* and *be* are used as the main verb, ***not*** is located after the verb.
 - Their findings *are not* significant.
 - Their results *had no* value. == Their results *did not have* any value.
- ***Not*** is located after **modal verbs** and **auxiliary verbs**.
 - Such parameters *should not* be treated with attention.
 - We *have not* encountered such a problem before.

State your aim before giving the reasons for it

- Which **sounds more logical** to you: S1 or S2?
 - S1: You need to develop a strategy, make decisions as to whether to collaborate or not with the other players, also keep an eye on the progress of the other players, and finally make the most money ***in order to win the game***.
 - S2: ***In order to win the game*** you need to make the most money. To do this, you need to develop ...

Deciding where to locate an adverb (副词)

- Adverb: *Only, also, usually, always, never*
- Immediately before the main verb.
 - Dying neurons do not *usually* exhibit these biochemical changes.
 - The doctors are *also* confused about this result.
- Immediately before the 2nd auxiliary when there are two auxiliaries.
 - I would *never* have done it if I had known the reason.
 - Late explanations may not *always* have been noted.