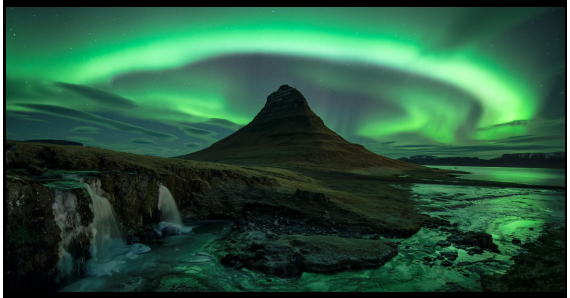
Scientific Writing in English
－英语科研论文写作－



Lecture 10: Friday 23.10.2015
(1.30-3.10pm/7-8.40pm)

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Volunteers for Note Taking
(Chinese/English)

compiled version to:

赵竹轩 zhaozhuxuan@ucas.ac.cn
&
吕平平 pplv10@126.com

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Overview

1. Feedback
2. Summary last class
3. Linking Words & Punctuation
4. This/These+Summary Word
5. Flow from Old-to-New

SUMMARY

DO USE in academic writing:

* use appropriate linking words
* use identical/similar phrases/words in subsequent sentences
* use as few words as possible, but as many as necessary to achieve:

CLARITY, LOGIC, PRECISION!

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OVERVIEW - Module 2

Unit 1: Approach to Academic Writing

1. Audience
2. Purpose and Strategy
3. Organization
4. Style
   - Language Focus: The Vocabulary Shift
   - Language Focus: Formal Grammar Style
5. **Flow**
   - **Language Focus: Linking Words**
   - **Language Focus: Punctuation**
   - **Language Focus: *this* + Summary Word**

Linking words

Illustration	for example for instance

More than two-thirds of the nuclear genes of the yeast *Saccharomyces cerevisiae*, **for instance**, are derived from eubacteria, and the balance from archaebacteria.

Linking words

Illustration	for example for instance

For instance, more than two-thirds of the nuclear genes of the yeast *Saccharomyces cerevisiae* are derived from eubacteria, and the balance from archaebacteria.

Linking words

Illustration	for example for instance

Take, **for instance,** the pressure of a gas — a cooperative property of large numbers of particles that is not anticipated from the behaviour of one particle alone.

Linking words

Illustration	for example for instance

In various ways, gene transfers between prokaryotes mimic patterns of telephone use. Some people only call their family and friends, **for instance**.

Linking words

Intensification	on the contrary as a matter of fact in fact

Selection therefore favors the evolution of cheats, which although destructive to the group, may act as the seeds for the emergence of new groups. _____, in our experimental populations the cheats are able to swim away from the group.

Linking words

Intensification	on the contrary as a matter of fact in fact

Selection therefore favors the evolution of cheats, which although destructive to the group, may act as the seeds for the emergence of new groups. **In fact,** in our experimental populations the cheats are able to swim away from the group.

Linking words

original manuscript draft:

As shown in Fig. 4, the control flies gradually increased the amount of food taken in, suggesting that their hunger drive increased with increasing length of starvation. On the contrary, mutant flies starved for less than 12 hours maintained the same levels of food intake.

?!

Linking words

Contrast	while whereas	in contrast however on the other hand conversely	unlike

To NOTE:

-> 'on the contrary' CANNOT be used for contrast!

Intensification	on the contrary as a matter of fact in fact

Linking words

Intensification	on the contrary as a matter of fact in fact

Example:

"... lawmakers have nothing to fear from the adoption of a national smoke-free law. **On the contrary**, a comprehensive national smoke-free law is likely to be extremely popular in China, even among smokers ..."

Source: China Daily, October 20 2015

Linking words

Example:

As shown in Fig. 4, the control flies gradually increased the amount of food taken in, suggesting that their hunger drive increased with increasing length of starvation. **In contrast**, mutant flies starved for less than 12 hours maintained the same levels of food intake.

Summary

Use the (correct) **Linking Words,** and use them often, to ensure good **Flow** of your ideas!

TABLE 1. Linking Words and Phrases

	Subordinators	Sentence Connectors	Phrase Linkers
Addition		furthermore in addition moreover	in addition to
Adversative	although even though despite the fact that	however nevertheless	despite in spite of
Cause and Effect	because since	therefore as a result consequently hence thus*	because of due to as a result of
Clarification		in other words that is i.e.	
Contrast	while whereas	in contrast however on the other hand conversely	unlike
Illustration		for example for instance	
Intensification		on the contrary as a matter of fact in fact	

Do NOT use And/But/Though at sentence beginnings!

Text A.

1. It has long been documented that individuals in an organization may voluntarily carry out tasks that are not part of their regular job duties. 2. For example, individuals may go above and beyond the call of duty to help coworkers, prevent problems or volunteer to stay late when not expected to do so. 3. This behavior is intended to help others in the organization or the organization itself and is often referred to as organizational citizenship behavior (OCB). 4.However, while/whilst it is recognized that OCB is important for an organization to effectively function, there is debate among researchers as to how OCB can be encouraged and rewarded. 5. This debate is further complicated when considering the role of OCB in multinational corporations pursuing global diversity. 6. Most OCB research has focused on Western cultures; however, it is not clear whether these research findings can be extended to other cultures, thus/therefore suggesting a need to investigate OCB as it exists in other cultures, particularly those described as "collectivist."

Text B.

1. Shape Memory Alloys (SMA) are a group of metallic materials that can return to some previously defined shape or size when subjected to the appropriate temperature. 2. When some SMA are cold they can be deformed at a low temperature; however, when the material is heated above this temperature it undergoes a change in crystal structure, thus causing it to return to its original shape. 3. Some materials exhibit shape memory only when heated, while/ whereas others undergo a shape change both when heated and when cooled.

4.While/Whilst many alloys are known to have the ability to "remember" their shape, only some may actually find widespread commercial use. 5. Of particular interest are those that can recover substantial amounts of strain or that generate significant force upon changing shape. 6. For instance/For example, one common nickel and titanium SMA, Nitinol, has this ability and is being used in surgical implants, clamps, miniature valves and switches, and other devices

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Flow

Punctuation: full stops, comma, semicolon, colon, dashes
. , ; : -

-> use them appropriately

Flow

Full stops -> .

* they do **NOT** separate your facts forever!
* instead, they help your reader breathing regularly!
* they give you the opportunity to introduce a sentence connector/conjunction
* they help you finish one thought before starting the next!
* in academic writing, shorter sentences are better (forget your teacher's advice!)

-> USE THEM! Generously!

Comma -> ,

* used for clauses (The book, which is rare, cannot be found in the library)

* used for lists

Example

The FIFA president, the head of communications, the FIFA spokes person and the FIFA general secretary sit in a car.

Comma -> ,

* often used with subordinators (Although...,... If...,... ..., whereas...)

Flow

Semicolons ;

* join two completely independent sentences

* can be used with sentence connectors (; however, ; thus, ; for example,)

* used to break up longer sentences

* useful for separating long items in a list

-> only use them occasionally

Flow

Colons -> :

* used to introduce a list

* mixed use of colon, comma, semicolons

* overuse to be avoided when formulating a clear scientific thought

Flow

Colons -> :

There are four main causes of airport congestion: bad weather, excessive volume, runway closures, and equipment outages.

compare with:

There are four main causes of airport congestion: bad weather, such as snow storm, may ground planes; too many planes may be scheduled to arrive or depart within a short period; runways may be closed; and equipment may be out of service.

Bad Example

They will never win a beauty contest, naked mole rats may hold a lesson or two for humans, with two studies in 2013 finding clues to why these rodents can live 30 years, cancer-free, with one of the secrets being that the ribosome that excels at producing error-free proteins; misformed proteins can clog up the body's systems and accelerate aging; another could be a supersized version of a complex sugar that seems to protect against cancer; naked mole rats do not break this compound down as fast as other animals, so it builds up in the spaces between cells and may keep the cells from clumping together and forming tumors.

words: 112 commas:6 full stops: 1 semicolons: 3
1 sentence!

Improved version

They will never win a beauty contest**, but** naked mole rats may hold a lesson or two for humans**. Recently**, two studies found clues to why **these** rodents can live 30 years. **Intriguingly**, they not only live long lives, they also remain cancer-free. **Interestingly,** one secret might be that **their** ribosomes excel at producing error-free proteins. This is important for overall health, **as** misformed proteins can clog up the body's systems, resulting in accelerated aging. **In addition**, the presence of a supersized version of a complex sugar appears to protect **them** against cancer. **Importantly**, it seems that naked mole rats do not break this compound down as fast as other animals. **As a consequence,** it builds up in the spaces between cells, where it may keep the cells from clumping together and forming tumors.

words: 125 commas:6 full stops: 8 words per sentence: ~15

8 sentences

TASK16: Focus: comma and semicolon use

Edit the following passages by adding semicolons or commas where necessary.

1. Although most major companies provide their employees e-mail accounts as well as Internet access, many of these companies are concerned about potential abuse, and monitor their employees' use of these media.

2. In fact, more than 75% of all major corporations report that they monitor their employees' use of e-mail and Internet access, either by spot-checking or constant surveillance.

3. Businesses have many reasons for monitoring e-mail and Internet use; for example, they may be concerned about protecting sensitive company information, or they may be worried about lawsuits arising from sexual harassment(,) because of mass mailing of offensive jokes.

4. In addition, there may be concerns about productivity.

5. Recent studies have shown that nearly 86% of employees use e-mail and cruise the Web for personal reasons, thus leading many companies to ban unproductive e-mail(,) such as jokes, and to restrict Web access.

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Flow

THIS/THESE + Summary word

* phrase that summarizes what has already been said in sentence before

Example 1:

ESL lecturers know that students need to understand the differences between formal and informal language. However, ***this understanding*** cannot be acquired quickly.

Flow

THIS/THESE + Summary word

* phrase that summarizes what has already been said in sentence before

Example 2:

The number of applications has increased steadily, while the number of places has remained constant. ***This situation*** has resulted in intense competition for admission.

Flow

THIS/THESE + Summary word

* ***THIS*** sometimes used 'unsupported' by noun

BEWARE: only do so if it is absolutely clear what THIS refers to!

-> ALWAYS support with suitable summary noun

Flow

THIS/THESE + Summary word

Example 1 - Original:

Moreover, the sugar residues may be long or short, branched or linear, and linked in various ways, creating significant variability in glycan structures. The large amount of variability presents a challenging obstacle to researchers attempting to elucidate structural, as well as compositional, information on glycans.

Flow

THIS/THESE + Summary word

Example 1 – improved version

Moreover, the sugar residues may be long or short, branched or linear, and linked in various ways, creating significant variability in glycan structures. **This** ~~large amount of~~ variability presents a challenging obstacle to researchers attempting to elucidate structural, as well as compositional, information on glycans.

Flow

THIS/THESE + Summary word

Example 2 - Original

Most of the currently available tools for identification of glycan structures are able to perform composition analysis of glycan, but cannot provide sequence information of the glycans studied. In addition, existing tools usually present all candidate structures since the tools cannot distinguish the different glycan isoforms under same molecular weight.

Flow

THIS/THESE + Summary word

Example 2

Most of the currently available tools for identification of glycan structures are able to perform composition analysis of glycan, but cannot provide sequence information of the glycans studied. In addition, **these** tools usually present all candidate structures, since the tools cannot distinguish the different glycan isoforms of identical molecular weight.