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所谓英语写作的连贯性 (Coherence) 是指句子、段落或整篇文章是连贯的, 它的各个部分被安排得非常妥贴, 以致它们的关系非常明晰。就一整篇文章来说, 段落之间的意思要连贯。以段落来说, 它的句子应被安排成清楚、合乎逻辑和易懂的顺序。这样的段落是一连续整体而不是一些句子的堆积, 使读者能容易地由一句到另一句地读下去。一个句子内也有连贯性, 它的各个组分的关系也应是合乎逻辑而清楚的。由于句子的连贯性是整篇文章连贯性的基础, 故本文主要介绍句子的连贯性。现将应注意的问题分七个大项目阐述于下。

(一) 写内容单一的句子, 不要将关系松散, 意思不紧密相关的东西硬凑在一个句子内, 例如

The ancient name for Paris, a city which has an annual rainfall of over twenty inches, was Lutetia.

应改为两个句子:

味是相等的。当 $\rho \gg \rho_R$ 时, θ_m 趋于 $\frac{\pi}{2}$ 。因此, 小混合角的中微子从 $\rho \ll \rho_R$ 向 $\rho \gg \rho_R$ 穿越时, 如果 ν_{im} 在 $\rho \approx 0$ 时主要成分是 ν_e 的味, 穿入 $\rho \gg \rho_R$ 后主要成分变为 ν_μ 的味——一般称为 MSW 效应 (Mikheyev-Smirnov-Wolfenstein 效应)。

在均匀介质中, 混合就象在真空中一样是一常数, 每个本征态各自独立的演化, ν_{im} 之间的转变是没有的。在非均匀介质中问题变得很复杂了, 混合量不再为常数, 如果密度变化慢得足以使 $\nu_{im} \leftrightarrow \nu_{2m}$ 的相互转变可以忽略, 所有中微子的味象 ν_{im} 一样, 只是密度 ρ 的单值函数, 它们的改变仅由密度引起, 称之为绝热振荡转变。

3. 中微子共振转变的三种方式

无振荡转变——如果中微子 (ν_e) 产生处的 (初始) 密度 $\rho \gg \rho_R$, 初始混合角 $\theta_m \sim \frac{\pi}{2}$, 即 $\nu_e \approx \nu_{2m}$ 。

在绝热条件演化中, 中微子 (ν_e) 的味与 ν_{2m} 的味同时演变; 如果最终密度 $\rho \sim 0$, 中微子在穿过共振层后味发生了改变。如果真空混合角 θ 越小和初始密度 ρ_0 越大, 就越能使初始中微子 (ν_e) 流衰减。

Paris has an annual rainfall of over twenty inches. The ancient name of the city was Lutetia.

(二) 不要用过多的叙述 (包括过多的从句) 去混淆句子的中心思想, 应去掉不相干的意思。

In 1788, when Andrew Jackson, then a young man of twenty-one years who had been living in the Carolinas, still a virgin country, came into Tennessee, a turbulent place, to enforce the law as the new prosecuting attorney, he had the qualifications that would make him equal to the task. 应改为

In 1788, when Andrew Jackson came into Tennessee as the new prosecuting attorney, he had the necessary qualification for the task.

(三) 应注意句子中词的顺序。英语句子的意思很大程度地依赖词的顺序, 例如下面两个句子的意思是不同的:

All the loans were not paid. Not all the loans were paid.

(1) 不要将句子中有关部分作不必要的分离。

(A) 主语一动词分离。

The detective, after a painstaking examination of the evidence, announced his conclusion.

绝热振荡转变——初始密度 $\rho_0 \geq \rho_R$, 密度的变化, 随距离的变化足够慢: $\frac{d\rho}{dr} \propto \frac{d\theta_m}{dt} \ll 2\pi l_m^{-1}$ (l_m —物质中的振荡长度), 中微子混合成分 ν_{im} 的大小一开始被确定后就在以后的演化中保持不变, 即 $\nu_{1m} \leftrightarrow \nu_{2m}$ 的相互转变可被忽略, ν_{1m} 和 ν_{2m} 各自独立地演化, 当中微子穿越共振区后味发生了改变。

绝热条件被破坏时——即在介质密度急剧变化的条件下, 本征态中混合量 ν_{im} 不再保持不变, 此时将存在 $\nu_{1m} \leftrightarrow \nu_{2m}$ 的相互转变, 如果初始时刻中微子是 ν_{1m} 中之一, 在以后会明显地出现另一种成分, 绝热条件破坏得越厉害, 中微子转变的几率就减小。

1988 年 Limom 等人研究了中微子味和螺旋度同时发生的共振转变 (如 ν_{eL} 变为 $\bar{\nu}_{\mu R}$) 是由于中微子磁矩与磁场相互作用发生混合而引起的振荡。

Mikheyev 和 Smirnov 的理论提出了解决太阳中微子失踪问题的机制, 认为太阳的电子型中微子 ν_e , 由于与太阳物质相互作用有可能转化为 μ 型中微子 ν_μ , 从而使得实验观测到的中微子减小了。但到目前为止, 这一学说仍是一种假说, 有待于系统的精密的实验工作来证实。

应改为

After a painstaking examination of all the evidence, the detective announced his conclusion.

(B) 动词短语的分离。

I would like, if you have time, to see you.

应改为:

I would like to see you if you have time.

(C) 动词与宾语的分离。

The detective announced, after a painstaking examination of all the evidence, his conclusion.

应改为:

The detective announced his conclusion after a painstaking examination of all the evidence.

(D) 不定式的分离。

You should try to not carelessly make a mistake.

应改为:

You should try not to make a mistake carelessly.

但不定式不是绝对不能分开的,有时分开不定式不仅是自然的而且也是希望的。

The weather was certain to delay our trip further.

可改写为:

The weather was certain to further delay our trip.

(2) 修饰成分应紧跟它所修饰的词或放在合适的位置,以免引起混淆

(A) 用作形容词的介词短语应紧跟它所修饰的词。

A garish poster attracts the visitor's eye on the east wall.

应改为:

A garish poster on the east wall attracts the visitor's eye.

(B) 副词短语位于所修饰词的附近。

One student said that such singing was not music but a throat ailment in class.

应改为:

In class one student said that... 或 One student said in class that...

(C) 定语从句应靠近它所修饰的词,

We brought gasoline in Arkansas at a small country store which costs \$3. 12.

应改写为

At a small country store in Arkansas, we brought gasoline which costs \$3. 12.

(四) 用转折词 therefore, however 等以显示句

子间的关系而保持句子间的连贯性,

It looked dangerous. Therefore, we did not try.

It looked dangerous; therefore, we did not try.

(五) 用合适的先行词和及代名词。

When Johnson's club was organized, he asked Goldsmith to become a member.

上句中“he”指的是谁是不清楚的,故应改为

When Johnson organized his club, he asked Goldsmith to become a member.

(六) 不要用悬挂式修饰词 (dangling modifier, 有的书上称为不连接修饰词或荡空修饰词)。这种悬挂式修饰词包括动词的非谓语形式(不定式、分词和动名词)及其短语,位置常在主句前(也有在句尾的)。其所以被称为悬挂式是因为它们不能合乎逻辑地修饰主句中某个词或短语,若此修饰词是修饰整个主句则不存在悬挂式修饰词的问题(见后文),本文主要介绍的是前者。

检查它们是否悬挂式修饰词的方法有两种

(1) 看修饰词的主语是否与主句的主语一致,若不一致则为悬挂式修饰词。

(2) 主句的主语是否能对此修饰词有动作,若不能有动作,则为悬挂式修饰词,例如

While eating, the table collapsed.

此句的修饰词“While eating”为悬挂式的,因修饰词的主语是人,而主句的主语是桌子;再者主句的主语“桌子”不能对修饰词有动作。故此句应改为

While I was eating, the table collapsed.

这种修饰词是由从句简化而来的,其后果有两种:导致悬挂式修饰和不导致悬挂式修饰词。

(1) 成为悬挂式的修饰词

When we use DC apparatus, the fish can be observed swimming toward the positive electrode. 简化状语从句后成为悬挂式修饰词 When using the DC apparatus, the fish can be observed swimming toward the positive electrode.

(2) 不成为悬挂式的修饰词

As he was interested in science, Franklin made numerous experiments.

Being interested in science, Franklin made numerous experiments.

由(1)例可见不是随意可由状语从句简化为修饰词的。

悬挂式修饰词会导致一些可笑的写法和误会,例如

The mouse was caught using the trap.

从字面上理解似乎是老鼠用了夹子,实际上用夹子的是人,故应改为

Using the trap, we caught the mouse. 又如 Before ordering the new laser printer for the pu-

blication manager, the accounting department must approve the purchase.

按主句主语与修饰词主语一致的原则,此句被理解为财务部门既是订货申请者又是批准者,而实际订货申请者是别的人,故此句应改为

Before Cheng can order the new laser printer for the publication manager, the accounting department must approve the purchase.

解决悬挂式修饰词的主要方法有两种:

- (1) 将修饰短语改成具有自己主语的状态从句。
 - (2) 将主句修改,使其主语与短语语法上的主语一致。
- 下面介绍各种悬挂式修饰短语及其修改方法。

(1) 避免悬挂式分词短语

(A) 在句首的。

Using smith's method anisotropy constants are obtained.

可改为

When we use smith's method, anisotropy constants are obtained.

Using smith's method we obtain anisotropy constants.

(B) 在句子后部,为一附加组分而不是引导组分,例如

A track suit must be worn, running in the stadium.

应改为

You must wear a track suit when you are running in the stadium.

这些分词不仅为现在式的,也可是过去式的,例如

Flattened by the impact, Jane surveyed her wrecked bike. 此句的意思似乎是 Jane 被撞了,实际上是自行车被撞了,故此句应被改为

Jane surveyed her bike, which was flattened by the impact.

(2) 不要用以动名词作宾语的悬挂式介词短语修饰词。动名词一般不能悬挂,因其不修饰任何东西,但若用于介词的宾语,整个短语起着分词的作用,仍可能导致悬挂式修饰词的错误。

Instead of watching the "Late Show", a novel was read. 应改为 Instead of watching the "Late Show", Nancy read a novel. 又如

After reaching northern Alaska, breeding occurs in the lowlands.

应改为

After reaching northern Alaska, the swans breed in the lowlands.

或者将修饰短语改为状语从句:

After the swans reach northern Alaska, they

breed in the lowland. 还可改为 On their arrival in northern Alaska, the swans breed in the lowland. 和分词一样,动名词短语在句末也可能是悬挂式的,如

The beans seemed quite tender before starting to season them. 应改为 The beans seemed quite tender before we started to season them.

(3) 避免由不定式组成的悬挂式修饰短语。

To apply this form of treatment, the patient had to admit to hospital.

应改为:

Because the patient needs this form of treatment, we had to admit the patient to hospital. 或改为 To apply this form of treatment, we had to admit the patient to hospital.

(4) 避免悬挂式省略分句。

When decreasing temperature, the thermal magnetic curves show that... 应改为 When we decrease temperature, the thermal show that...

(5) 不属于悬挂式修饰词的情有,下列两种。

(A) 带主语的独立结构 (nominative absolute 或 absolute construction) 是由名词和分词组成的,此名词即是它的主语。此主语与句子的主语不是同一人或同一事物。这种独立结构不属于悬挂式的,例如

Sodium hydroxide solution having been added, the resulting acidic solution is neutralized.

This being the case, we had no choice.

(B) 若修饰短语不起形容词或副词的作用去修饰句中某个词而修饰整个句子时,就不存在悬挂式修饰短语的问题。这种短语常为, allowing, assuming, comparing, considering, substituting 等起首的短语。它们的例子如下:

Assuming $x = 2.4$ psi, the equation would read...

Generally speaking, the electrical conductivity increases as more impurity is added.

Considering everything, it was not a bad experiment. (待续)

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