4-19 The stuff材料，原料of dreams 话说梦的本质

It is fairly完全；清楚地 clear that the sleeping period must have some function, and [because there is so much of it] the function would seem to be important.

Speculations猜测，推断 about its nature have been going on for literally不夸张地《确实地 thousands of years, and one odd奇特的；古怪的 finding （that makes the problem 宾补puzzling（adj.）使迷惑；使困惑） is 表从that it looks very much **as if** sleeping is not simply a matter of giving the body a rest.

'Rest', **in terms of**从…方面看 muscle relaxation and so on, can be achieved by a brief period lying, or even sitting down.

The body's tissues （动植物）组织 are self-repairing and self-restoring自行恢复的 **to a degree**在一定的程度上, and function运转,发挥功能 best when more or less continuously active. （有张有弛地连续活动时，其功能最佳。）

**In fact** a basic amount of movement occurs during sleep （which is specifically专门地 concerned with与……有关 preventing预防 muscle inactivity（n.）不活动停滞）.

If it is not a question of resting the body, then / perhaps **it is** the brain **that**强调句 needs resting? This might be a plausible貌似合理的 hypothesis（n.）假说 条件状从were it not for two factors. （若不是下面两点，这种假使似乎是有道理的。）

[First] the electro-encephalo-graph脑电图仪 (which is simply a device （for recording the electrical activity of the brain 工具状by attaching系上,贴上 electrodes电极，电焊条 to the scalp头皮）) shows that 让步状从while there is a change in the pattern of activity during sleep, there is no evidence 同位that the total amount of activity is any less.

The second factor is more interesting and more fundamental最根本的；最重要的。必需的.

[Some years ago] an American psychiatrist精神病学家 named William Dement published experiments实验 （dealing with论述，涉及 the recording of eye-movements during sleep）.

He showed that the average individual's sleep cycle is punctuated不时介入；不时打断某事物 with peculiar bursts突然闯进（或跑出）,突然出现,（使）爆裂 of eye-movements, 独立主格some drifting漂流的，飘动的 and slow, others jerky（adj.）急动的,忽动忽停的 and rapid迅速的.

People （woken during these periods of eye-movements） generally reported that they had been dreaming. When woken at other times / they reported no dreams.

If one group of people were disturbed from their eye-movement sleep for several nights **on end**连续地, and another group were disturbed for an equal period of time 除了but when they were no exhibiting表现；显示 eye-movements, the first group began to show some personality disorders失调,使混乱 while the others seemed more or less unaffected未受影响的.

The implications含义 of all this were 表从that it was **not** the disturbance打扰 of sleep that mattered有重大影响；要紧, **but** the disturbance of dreaming.（在 but the disturbance of dreaming 后面省略了 that mattered 。）

1. were it not for two factors如果不是下面两个因素的话。该句为「条件状语从句」，在英语中可以省略if，将从句中的were或 should置于句首，构成「条件状语从句」。但这种用法通常只用于正式文章或公函中，如：

Should you be interested in our offer，please contact us . 你若对我们的报价感兴趣，请与我们联系。

Were it not for your help，I would still be homeless. 若非你的帮助，我仍会无家可归。

1. punctuate…with/by…：用…不停地打断…

The silence of the night was punctuated by the distant rumble of traffic. 夜晚的宁静不时被远处车辆的隆隆声打断。

4-20 Snake poison

{How it came about发生，产生 that snakes manufactured（通常指大量）制造，生产 poison} is a mystery. **Over the periods**经过很长时间 their saliva唾液, 同位a mild, digestive助消化的 juice胃液 like our own, was converted into把…改成，把…转换成 a poison that defies无法，难以（描述或理解） analysis分析 even today.（演变成了今天仍无法分析清楚的毒液。）

It was not forced（v.） upon强加给 them by the survival（n.）生存；幸存 competition竞争；比赛； they could have caught and lived on靠…生活 prey受害者；受骗者 without using poison, 方式状just as the thousands of non-poisonous snakes still do.

Poison [to a snake] is merely a luxury； it enables it to get its food with very little effort, **no more** effort **than** one bite. （no more ... than = 和......一样不(否定两者)）

And / why only snakes?

Cats, for instance, would be greatly helped；no running fights with large, fierce凶猛的，残忍的 rats / or tussles扭打,厮打 with grown成年的 rabbits ——just a bite / and no more effort needed.

In fact, it would be an assistance帮助，援助 to all carnivores食肉动物 though虽然 it would be a two-edged weapon双刃剑 [when they fought each other].

But, of the vertebrates在脊椎动物中, unpredictable不可预知的 Nature selected only snakes (插入and one lizard蜥蜴).

One人们 wonders also {why Nature, with some snakes, concocted调制，调配 poison of such extreme potency药效}. （also是较正式的用词，多用于书面语，基本意思是“也”“还”。在句中起补充追加的作用。）

In the conversion转变 of saliva into poison, one might suppose that a fixed process took place发生，举行.

It did not并非如此；some snakes manufacture a poison （different **in every respect**在各方面 from that of others,方式状**as different as** arsenic砒霜 is from strychnine士的宁）, and （having different effects）. One poison acts on the nerves, the other on the blood. （其实没有。有些蛇产生的毒液，也在各方面与另外一些毒蛇产生的毒液不同，就像砒霜不同于马钱子碱一样。）

→as different as arsenic is from strychnine; and having different effects. 就像砒霜不同于马钱子碱,是方式状语

The makers of the nerve poison include the mambas树眼镜蛇 and the cobras眼镜蛇 / and their venom毒液 is called neurotoxic神经毒素.

Vipers蝰蛇 (adders蝰蛇,小毒蛇) and rattlesnakes响尾蛇 manufacture the blood poison, which is known as haemolytic（adj.）溶血性的.

Both poisons are unpleasant, but **by far**…得多,显然 the more unpleasant is the blood poison.

It is said that the nerve poison is the more primitive of the two, that the blood poison is, **so to speak**个比方说,可以这样说, a newer product （from an improved formula方案；方法,分子式,方程式）.

让步状**Be that as it may**尽管如此, the nerve poison **does its business with man**在人身上起作用,要人的命 far more quickly than the blood poison. This, however, **means nothing**无关紧要，并不意味着什么. （Be that as it may是一个“倒装”的「让步状语从句」，相当于 however that may be，意即“尽管如此”。）

Snakes did not acquire their poison 目的状for use against man / but for use against prey猎物 同位such as rats and mice, and the effects on these of viperine毒蛇的 poison is almost immediate.（因为蛇有毒液不是用来对付人的，而是对付它的猎物，诸如鼠类，毒液对这些猎物会立刻起作用。）

1. come about发生，产生，如：

How did such a mess come about，anyway ? 到底这乱七八糟的是怎么发生的？anyway ADV到底；究竟。）

come about 常用于it + comes about + that 结构中，如：

It came about {that he had to cancel his vacation }. 所发生的事使他不得不取消假期。

1. defy [ di'fai] v.无法，难以（描述或理解）

[When the flowers open in spring] they fill the night air with a fragrance that defies description描述形容. 春天鲜花开放时，夜里的空气中会弥漫一种难以名状的香气。

It's a devastating and barbaric act （that defies all comprehension）. 这种行为野蛮凶残、令人震惊，简直是不可理喻。（comprehension n.充分了解;完全明白）

1. no more ... than = 和......一样不(否定两者)

You are no more careful than he is. 你和他一样不仔细。

→no more than只是；至多；只不过；无非（连接两个并列分句）。

This makes us believe t{hat the whole thing is no more than a show}. 这让我们相信，整件事情只不过是一场秀。

1. of the vertebrates 等于 among the vertebrates，意即“在脊椎动物中”。
2. be different（adj.） from与…不同
3. by far 作状语，意即“……得多”、“显然”，常用来修饰比较级或最髙级，强调数量或程度，如：

She is by far the better player.她显然比别的运动员强得多。

This melon is by far the ripest of all.这个西瓜显然是这些西瓜中最熟的。