

2025年6月·第3套 英语四级长篇阅读（信息匹配） 第1篇·36-45 题 答案与解析

STATEMENTS & ANALYSIS • 信息匹配题和解析

信息匹配题和解析 · 36-45 题

本页 36-45 题的段落匹配答案与逐句解析由懒笔记基于2025年6月·第3套 英语四级长篇阅读（信息匹配）原卷逐题核对整理。与试卷排版同一卷面：先是 Directions 与 14 段字母标号长文（逐段附中文翻译）；之后 10 句陈述逐句排列，每句英文陈述后紧接本句解析——陈述句中译、信息所在段落、锚点强弱、定位句中英对照、陈述句与原文的同义改写对照与易混相邻段辨析。

真题卷第3套(2025-06) · 英语四级

Part III Section B

Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter. Answer the questions by marking the corresponding letter on **Answer Sheet 2**.

"Phantom" Traffic Jams Are Real—And Scientists Know How to Stop Them

- A) Traffic jams are a common problem of most big cities, either in developed or in developing countries, but one kind of traffic jams in particular can be especially frustrating. These are generally known as "phantom" traffic jams, in which dense traffic crawls to a halt for no apparent reason at all.

交通堵塞是大多数大城市的常见问题,无论是在发达国家还是在发展中国家,但有一种交通堵塞尤其令人沮丧。这种堵塞通常被称为"幽灵"交通堵塞,在这种情况下,密集的车流会毫无明显原因地缓慢爬行直至停止。

- B) "When caught in such a traffic jam, it is common for drivers to assume that there must be an accident, or construction or something," said Massachusetts Institute of Technology (MIT) computer science professor Berthold Horn. "And then you drive and drive and drive... and there isn't anything there."

"当遇到这种交通堵塞时,司机通常会认为前方一定发生了事故,或者有施工或其他什么情况,"Massachusetts Institute of Technology(MIT)计算机科学教授Berthold Horn说。"然后你不停地开、不停地开、不停地开.....结果前面什么都没有。"

- C) The exact cause of these phantom traffic jams has long remained a mystery. But now, new research has found the cause and researchers may have come up with a solution for this frustrating traffic

pattern: maintaining equal spacing between cars on the road, rather than driving so closely behind another vehicle that a collision(碰撞) is likely if that vehicle brakes suddenly.

这些幽灵交通堵塞的确切原因长期以来一直是个谜。但现在,新的研究发现了原因,研究人员可能已经找到了解决这种令人沮丧的交通模式的方法:在道路上保持车辆之间的等距间隔,而不是紧紧跟在另一辆车后面,以至于如果前车突然刹车就很可能发生碰撞。

- D) Horn said phantom traffic jams are an emergent property of the flow of vehicles down a highway. A phantom jam begins when a car in dense traffic slows down even slightly, which causes the car behind that vehicle to slow even more—and the slowing action spreads backward through the lane of traffic like a wave, getting worse the farther it spreads. Eventually, the cars far behind are forced to stop completely or risk hitting the slower vehicles ahead—and so the traffic grinds to a halt over nothing, Horn said.

Horn说,幽灵交通堵塞是车辆在高速公路上行驶流量的一个涌现性质。幽灵堵塞始于密集交通中的一辆车哪怕只是轻微减速,这导致该车后面的车减速得更多——减速行为像波浪一样向后传播到整个车道,传播得越远就越严重。最终,远处后面的车被迫完全停下来,否则就有撞上前面较慢车辆的风险——于是交通无缘无故地陷入停滞,Horn说。

- E) Horn has been working on the problem of phantom traffic jams for years, and he has come up with a solution: By splitting the difference between the cars in front and the cars behind, the spacing of cars in a stream of traffic can act as a damper(抑制) on phantom traffic jams. That is, it can prevent the slow-down effect from being amplified(增强) by the cars that follow behind, he said. In essence, each driver would constantly make adjustments to keep their car roughly halfway between the car in front and the car behind.

Horn多年来一直在研究幽灵交通堵塞问题,他提出了一个解决方案:通过折中前方车辆和后方车辆之间的距离,车流中车辆的间距可以对幽灵交通堵塞起到抑制作用。也就是说,它可以防止减速效应被后面跟随的车辆增强,他说。从本质上讲,每个司机都会不断调整,使自己的车大致保持在前车和后车之间的中间位置。

- F) Horn calls this method of vehicle spacing bilateral(双边的) control, and he said it could be achieved with relatively simple modifications to the adaptive cruise control that many new cars already have. Adaptive cruise control is a driver assistance technology that sets a maximum speed for vehicles and automatically slows the speed of the car when traffic is sensed in front of the vehicle. The technology is also known as autonomous cruise control. Such modifications, Horn said, could help fight phantom jams within a few years, maybe decades before an alternative solution, such as networked self-driving cars, becomes a reality on the roads.

Horn将这种车辆间距方法称为双边控制,他说这可以通过对许多新车已经配备的自适应巡航控制系统进行相对简单的改进来实现。自适应巡航控制是一种驾驶辅助技术,它为车辆设定最高速度,并在感应到车辆前方有交通时自动降低车速。该技术也被称为自主巡航控制。Horn说,这种改进可以在几年内帮助对抗幽灵堵塞,这可能比另一种解决方案(如联网自动驾驶汽车)在道路上成为现实早几十年。

- G) Traffic jams are caused by a number of factors, such as roads that are poorly designed or over-capacity, localized factors like city traffic-lighting patterns, and events like accidents and construction. But phantom traffic jams can make all those problems worse, Horn said. And the researchers in the

new study have calculated that solving phantom jams could save at least some of the estimated \$121 billion per year that traffic jams are estimated to cost the U.S. economy, Horn told Live Science.

交通堵塞是由许多因素造成的,例如设计不良或超负荷的道路、城市交通信号灯模式等局部因素,以及事故和施工等事件。但幽灵交通堵塞会使所有这些问题变得更糟,Horn说。新研究中的研究人员计算出,解决幽灵堵塞可以节省交通堵塞估计给美国经济造成的每年1210亿美元损失中的至少一部分,Horn告诉Live Science。

- H) New research by Horn and MIT postdoctoral associate Liang Wang, published in the journal IEEE Transactions on Intelligent Transportation Systems, shows how bilateral control can fight the problem. The researchers made computer models of real-world traffic conditions, showing how a typical U.S. freeway could benefit from cars using bilateral control. That would be in place when human drivers fail to slow down, thus avoiding tailgating(紧跟) the car in front, Horn said. "Under reasonable conditions today, you might get 1,800 cars per lane per hour throughput (the volume of traffic passing through)," he added. "But with bilateral control, you could almost double that."

Horn和MIT博士后研究员Liang Wang发表在IEEE Transactions on Intelligent Transportation Systems期刊上的新研究显示了双边控制如何对抗这个问题。研究人员建立了真实交通状况的计算机模型,展示了典型的美国高速公路如何能从使用双边控制的汽车中受益。当人类司机未能减速从而避免紧跟前车时,双边控制就会发挥作用,Horn说。"在今天的合理条件下,你每小时每车道可能获得1800辆车的通行量(通过的交通流量),"他补充道。"但有了双边控制,你几乎可以将其翻倍。"

- I) The main alternative to increasing traffic throughput per lane has been to build more lanes and more highways, and putting in new roads is very expensive, he said. "If we can increase the throughput on major highways, even if it's only by 50 percent, that would be a big deal," Horn said.

增加每车道交通通行量的主要替代方案是修建更多车道和更多高速公路,而铺设新道路非常昂贵,他说。"如果我们能增加主要高速公路的通行量,即使只增加50%,那也将是一件大事,"Horn说。

- J) With the help of engineering students at high schools in Maine, Horn and Wang have also built a robot simulation(模拟) that shows how bilateral control can suppress phantom traffic jams. Increasing the spacing of vehicles dampens the effect of slowdowns by cars in front of a given car, so that the slowing is not worsened until it becomes a phantom jam, the researchers said.

在Maine州高中工程学生的帮助下,Horn和Wang还建立了一个机器人模拟,展示双边控制如何抑制幽灵交通堵塞。增加车辆间距可以抑制给定车辆前方汽车减速的影响,从而使减速不会恶化到形成幽灵堵塞,研究人员说。

- K) A video from the project shows a train of autonomous robots running along a track without bilateral control; they eventually back up in phantom jams. But when the robots are switched over to bilateral control (by flashing the lights in the room), each autonomous robot tries to keep itself halfway between the robot in front and the one behind; the phantom jams disappear as a result, Horn said.

该项目的一段视频显示,一列自主机器人在没有双边控制的情况下沿轨道行驶;它们最终在幽灵堵塞中倒退。但当机器人切换到双边控制(通过闪烁房间内的灯光)时,每个自主机器人都试图将自己保持在前面和后面机器人之间的中间位置;结果幽灵堵塞消失了,Horn说。

- L) Since starting his research on phantom traffic jams, Horn has learned that schools of fish and flocks of birds and bats use similar spacing strategies to avoid hitting each other while swimming or flying in densely packed groups. In particular, studies of millions of bats emerging at dusk from caves in

Southeast Asia showed that each bat used a form of bilateral control to reduce the likelihood of collisions with other bats in the densely packed swarm(一大群), Horn said.

自从开始研究幽灵交通堵塞以来,Horn了解到鱼群、鸟群和蝙蝠群使用类似的间距策略,以避免在密集群体中游泳或飞行时相互碰撞。特别是,对东南亚洞穴中黄昏时涌出的数百万只蝙蝠的研究表明,每只蝙蝠都使用一种双边控制形式来减少在密集群体中与其他蝙蝠碰撞的可能性,Horn说。

M) Unlike bats, birds and fish, however, humans have difficulty judging distances behind them. To address that weakness, Horn is now working with the car company Toyota to enable a form of bilateral control via modifications to existing adaptive cruise control systems, which use forward-facing sensors to judge the distance to the vehicle ahead. The bilateral control approach would include adding rear-facing sensors to determine the distance to the vehicle following a car.

然而,与蝙蝠、鸟类和鱼类不同,人类很难判断身后的距离。为了解决这一弱点,Horn现在正与汽车公司Toyota合作,通过改进现有的自适应巡航控制系统来实现一种双边控制形式,该系统使用前向传感器来判断与前方车辆的距离。双边控制方法将包括添加后向传感器来确定与跟随车辆的距离。

N) But until those systems become standard, human drivers can help reduce phantom traffic jams simply by not following the car in front so closely. As Horn argues, "There's absolutely no advantage of tailgating the car in front of you."

但在这些系统成为标准配置之前,人类司机可以通过不那么紧地跟随前车来帮助减少幽灵交通堵塞。正如Horn所说,"紧跟前车绝对没有任何好处。"

陈述句与逐句解析

36. The age-long mystery has now been resolved as to how phantom traffic jams are caused.

关于幽灵交通堵塞是如何引起的这一由来已久的谜团现已得到解决。

【答案】 C 段(强锚点)

【锚点】 谜题已解

【定位】 The exact cause of these phantom traffic jams has long remained a mystery. But now, new research has found the cause

这种幻影堵车的确切成因长期以来一直是个谜。但如今,新研究已经找到了病因。

【改写】 has now been resolved ↔ new research has found the cause

解决=找到病因

37. It is possible to nearly double the hourly throughput per lane by adopting bilateral control.

通过采用双边控制,有可能使每车道的每小时通行量几乎翻倍。

【答案】 H 段(强锚点)

【锚点】 通行量翻倍

【定位】 "Under reasonable conditions today, you might get 1,800 cars per lane per hour throughput (the volume of traffic passing through)," he added. "But with bilateral control, you could almost double that."

“在今天的合理条件下，每车道每小时通行量大约 1800 辆，”他补充道。“但用双边控制，你几乎能让它翻倍。”

【改写】 nearly double the hourly throughput per lane ↔ **you could almost double that**
nearly≈almost

【辨邻】 **I** I 段说的是 increase the throughput on major highways, even if it's only by 50 percent——靠修路只提升 50%，并非靠双边控制翻倍，与陈述句的“几乎翻倍”不符。

If we can increase the throughput on major highways, even if it's only by 50 percent

38. According to Horn, drivers making constant adjustments for equal spacing between cars in a flow of traffic can help reduce phantom traffic jams.

根据Horn的说法,驾驶员在车流中不断调整以保持车辆之间的等距间隔可以帮助减少幽灵交通堵塞。

【答案】 **E** 段 (弱锚点)

【锚点】 不断调整保持等距

【定位】 In essence, each driver would constantly make adjustments to keep their car roughly halfway between the car in front and the car behind.

本质上，每个司机都要不断调整，让自己的车大致保持在前车与后车的正中间。

【改写】 making constant adjustments for equal spacing between cars ↔
constantly make adjustments to keep their car roughly halfway
等距即居中

【辨邻】 **C** C 段 maintaining equal spacing between cars on the road 只是概括性地指出解法叫“保持等距”，并没有讲“司机不断调整保持居中”这一具体动作，落点比 E 段浅。

maintaining equal spacing between cars on the road

39. Before systems for bilateral control are installed, drivers should not follow the car in front too closely so as to reduce phantom traffic jams.

在安装双边控制系统之前,驾驶员不应跟前车太近,以减少幽灵交通堵塞。

【答案】 **N** 段 (弱锚点)

【锚点】 系统普及前别紧跟

【定位】 But until those systems become standard, human drivers can help reduce phantom traffic jams simply by not following the car in front so closely.

但在这些系统普及之前，人类司机只要不那么紧跟前车，就能帮助减少幻影堵车。

【改写】 should not follow the car in front too closely ↔ **not following the car in front so closely**
too closely≈so closely

【辨邻】 **F** F 段 it could be achieved with relatively simple modifications to the adaptive cruise control 讲的是技术如何实现，而非“普及前司机的行为建议”，答非本句所问。

it could be achieved with relatively simple modifications to the adaptive cruise control

40. Horn said with some simple modifications to the existing equipment in new vehicles, their spacing bilateral control could be accomplished.

Horn说,通过对新车现有设备进行一些简单的改装,就可以实现车辆间距双边控制。

【答案】 **F** 段 (强锚点)

【锚点】 简单改装新车设备

【定位】 it could be achieved with relatively simple modifications to the adaptive cruise control that many new cars already have.

它只需对许多新车已经配备的自适应巡航控制做相对简单的改装就能实现。

【改写】 the existing equipment in new vehicles ↔

the adaptive cruise control that many new cars already have

上位概括

【辨邻】 **M** M 段 modifications to existing adaptive cruise control systems 的落点是“为解决人判断后方距离的弱点而加装后向传感器”（对应第 42 题），而非本句“简单改装即可实现”这一概括，重点不同。

modifications to existing adaptive cruise control systems

41. Drivers caught up in phantom traffic jams are likely to think an accident has happened or some construction is going on.

陷入幽灵交通堵塞的驾驶员很可能会认为发生了事故或正在进行某些施工。

【答案】 **B** 段 (强锚点)

【锚点】 以为事故或施工

【定位】 When caught in such a traffic jam, it is common for drivers to assume that there must be an accident, or construction or something

被堵在这种车流里时，司机通常会以为前面一定出了事故，或者在施工之类。

【改写】 think an accident has happened or some construction is going on ↔

assume that there must be an accident, or construction or something

think≈assume

42. Two sets of sensors would be used to help drivers determine the distances between cars.

将使用两组传感器来帮助驾驶员确定车辆之间的距离。

【答案】 **M** 段 (强锚点)

【锚点】 两组传感器

【定位】 which use forward-facing sensors to judge the distance to the vehicle ahead. The bilateral control approach would include adding rear-facing sensors to determine the distance to the vehicle following a car.

(这些系统) 用前向传感器判断与前车的距离。双边控制方案还要加装后向传感器, 以测定与后方跟随车辆的距离。

【改写】 Two sets of sensors ↔ **adding rear-facing sensors**

前向已有+后向新增=两组

43. Solving the problem of phantom jams could save America billions of dollars every year.

解决幽灵堵塞问题每年可为美国节省数十亿美元。

【答案】 **G** 段 (强锚点)

【锚点】 每年省下数十亿

【定位】 solving phantom jams could save at least some of the estimated \$121 billion per year that traffic jams are estimated to cost the U.S. economy

解决幻影堵车, 能省下堵车每年给美国经济造成的、估计达 1210 亿美元损失中的至少一部分。

【改写】 save America billions of dollars every year ↔

save at least some of the estimated \$121 billion per year

billions 概括 \$121 billion

【辨邻】 **I** I 段 putting in new roads is very expensive 讲的是替代方案花钱多, 与陈述句“为美国每年省钱”方向相反。

putting in new roads is very expensive

44. In a phantom traffic jam, the cars in the same lane slow down one after another, creating a wave-like effect.

在幽灵交通堵塞中,同一车道上的车辆一辆接一辆地减速,形成波浪效应。

【答案】 **D** 段 (强锚点)

【锚点】 逐车减速的波浪效应

【定位】 the slowing action spreads backward through the lane of traffic like a wave, getting worse the farther it spreads.

减速这一动作像波浪一样沿车道向后蔓延, 传得越远越严重。

【改写】 slow down one after another, creating a wave-like effect ↔

the slowing action spreads backward through the lane of traffic like a wave

蔓延=逐车

45. Horn has found that certain creatures use strategies similar to bilateral control to avoid hitting each other while moving in dense crowds.

Horn发现某些生物在密集人群中移动时使用类似于双边控制的策略来避免相互碰撞。

【答案】 L 段 (强锚点)

【锚点】 动物用类似策略防撞

【定位】 schools of fish and flocks of birds and bats use similar spacing strategies to avoid hitting each other while swimming or flying in densely packed groups.

鱼群、鸟群和蝙蝠会用类似的间距策略，避免在密集群体中游动或飞行时相互碰撞。

【改写】 use strategies similar to bilateral control to avoid hitting each other ↔

use similar spacing strategies to avoid hitting each other

上位词替换

PARAGRAPH MAP • 段落主旨图

14 个段落各讲了什么

逐段一句主旨 + 该段最具区分度的「信息指纹」，是逐句回扫定位的工作台。

A 提出话题：城市里有一种特别恼人的堵车叫“幻影堵车”，路上没出任何事却突然堵死。

信息指纹 幻影堵车定义

B Horn 教授引语：被堵住时司机通常以为前面出了事故或在施工，开过去却什么都没有。

信息指纹 司机的错误猜测

C 幻影堵车的成因长期是谜，新研究找到了病因，并给出解法：车与车保持等距。

信息指纹 谜题已解-找到病因

D 讲机理：一辆车稍一减速，后车减得更多，减速像波浪一样向后蔓延，越传越糟，最终堵死。

信息指纹 波浪式蔓延机理

E Horn 的解法原理：每个司机不断微调，使自己大致处在前车与后车的正中间，以此抑制堵车。

信息指纹 居中·不断调整

F 给方法命名为“双边控制”，并说只需对很多新车已有的自适应巡航做简单改装即可实现。

信息指纹 命名双边控制·简单改装

G 幻影堵车放大各种堵车损失；解决它能为美国每年省下堵车造成的部分经济损失。

信息指纹 经济损失数字

H 新研究用计算机建模证明：今天每车道每小时约 1800 辆，用双边控制几乎能翻倍。

信息指纹 通行量翻倍

I 提高每车道通行量的主要替代办法是多修车道和公路，但修路非常贵。

信息指纹 替代方案·修路昂贵

J Horn 和学生还造了一个机器人模拟，演示双边控制能抑制幻影堵车。

信息指纹 机器人模拟

K 项目视频显示：不开双边控制的机器人队列会堵；切换到双边控制后，幻影堵车消失。

信息指纹 视频演示·堵车消失

L Horn 发现鱼群、鸟群和蝙蝠用类似的间距策略避免在密集群体中相撞。

信息指纹 鱼鸟蝙蝠类比

M 人不擅长判断身后距离；Horn 正与丰田合作，给自适应巡航加装后向传感器来实现双边控制。

信息指纹 前后两组传感器

N 在这些系统普及之前，司机只要不紧跟前车，就能减少幻影堵车——紧跟毫无好处。

信息指纹 别紧跟前车的建议

SENTENCE INSIGHTS • 句子精讲

23 句真题句逐层精讲

下列真题句各有独立的句子解析页——中文翻译、结构树逐层拆解、成分与时态、考点讲解与真题高频词。点击句子进入完整解析。

These are generally known as "phantom" traffic jams, in which dense traffic crawls to a halt for no apparent reason at all.

A段，第2句

被动语态加非限制性定语从句是四六级和考研阅读中的高频句式，in which 引导定语从句也是常考结构。本句结构具有很强的代表性，掌握后可直接迁移到大量真题长难句的分析中。

But now, new research has found the cause and researchers may have come up with a solution for this frustrating traffic pattern: maintaining equal spacing between cars on the road, rather than driving so closely behind another vehicle that a collision(碰撞) is likely if that vehicle brakes suddenly.

C段，第2句

本句包含并列主语和谓语、宾语、同位语、定语从句、条件状语从句、时间状语、方式状语等多种成分，覆盖面广。同位语与宾语的区分、定语从句的识别、情态动词加完成时的谓语判定、rather than 引导的对比结构，都是常见易错点，训练价值高。

A phantom jam begins when a car in dense traffic slows down even slightly, which causes the car behind that vehicle to slow even more—and the slowing action spreads backward through the lane of traffic like a wave, getting worse the farther it spreads.

D段，第2句

本句涵盖了丰富的成分类型：主谓结构、使役结构（"cause + 宾语 + to do"）、宾语补足语、多种状语（程度状语、方向状语、方式状语）、后置定语（介词短语）、关系代词作主语等，且使役结构和宾语补足语是学习者的常见易错点，作为划分成分练习句价值较高。

Horn has been working on the problem of phantom traffic jams for years, and he has come up with a solution: By splitting the difference between the cars in front and the cars behind, the spacing of cars in a stream of traffic can act as a damper(抑制) on phantom traffic jams.

E段，第1句

并列主句加同位语从句的组合是四六级和考研阅读中的常见句式，用冒号引出同位语说明也是典型的学术写作风格。现在完成时和情态动词结构都是高频考点。掌握本句的分析方法可以直接迁移到大量真题句子中。

Such modifications, Horn said, could help fight phantom jams within a few years, maybe decades before an alternative solution, such as networked self-driving cars, becomes a reality on the roads.

F段，第4句

"主句 + before 引导的时间状语从句" 是四六级和考研阅读中的高频句式，主句中插入语和复杂时间状语的组合也常见于学术文本，句式代表性强，掌握后可广泛迁移。

And the researchers in the new study have calculated that solving phantom jams could save at least some of the estimated \$121 billion per year that traffic jams are estimated to cost the U.S. economy, Horn told Live Science.

G段，第3句

覆盖主谓宾、宾语从句、定语从句、动名词作主语、情态动词、被动语态加不定式补语等多种成分和结构,且存在两个that引导不同从句的易错点,作为成分划分练习句收益高。

New research by Horn and MIT postdoctoral associate Liang Wang, published in the journal IEEE Transactions on Intelligent Transportation Systems, shows how bilateral control can fight the problem.

H段，第1句

本句的核心结构 主句 加 宾语从句 是四六级和考研阅读中高频出现的句式,且主语带后置定语、谓语后跟 how 引导的宾语从句都是典型搭配。掌握后可迁移到大量学术文献和新闻报道类句子,代表性较强。

The researchers made computer models of real-world traffic conditions, showing how a typical U.S. freeway could benefit from cars using bilateral control.

H段，第2句

本句的 主句 + 分词短语作状语 + 嵌套宾语从句 结构在四六级和考研阅读中较为常见，尤其是分词短语补充说明主句动作、宾语从句表达展示或说明内容的模式。掌握此类句式有助于理解科技类和研究类文章的典型表达。

That would be in place when human drivers fail to slow down, thus avoiding tailgating(紧跟) the car in front, Horn said.

H段，第3句

本句结构在四六级和考研真题中较为常见：主句 + when 引导的时间状语从句 + 分词短语作结果状语，这种组合是说明文和议论文的典型句式。情态动词 would 表推测、分词作结果状语都是高频考点。掌握后可复用到大量类似句子的分析中。

"If we can increase the throughput on major highways, even if it's only by 50 percent, that would be a big deal," Horn said.

I段，第2句

这是典型的引述句 + 宾语从句 + 条件让步状语从句的组合结构，在四六级、考研阅读中非常常见。特别是宾语从句内部嵌套条件状语的模式，以及 even if 引导让步从句的用法，都是高频句式，掌握后可大量复用到类似句子的理解中。

With the help of engineering students at high schools in Maine, Horn and Wang have also built a robot simulation(模拟) that shows how bilateral control can suppress phantom traffic jams.

J段, 第1句

定语从句修饰主句宾语加宾语从句嵌套的结构,在四六级和考研阅读中非常常见,是典型的复杂句式。掌握此类句型对理解学术文本和新闻报道有很高的迁移价值。

Increasing the spacing of vehicles dampens the effect of slowdowns by cars in front of a given car, so that the slowing is not worsened until it becomes a phantom jam, the researchers said.

J段, 第2句

该句结构高度典型: 学术引述加复杂因果逻辑表达, 是四六级和考研阅读中科技说明文的常见句式。"so that" 结果状语从句加 "until" 时间状语从句的组合, 以及动名词短语作主语表达措施, 都是考试高频结构, 掌握后可迁移到大量同类句子。

A video from the project shows a train of autonomous robots running along a track without bilateral control; they eventually back up in phantom jams.

K段, 第1句

本句涵盖了主语、谓语、宾语、状语等基本成分, 且第一分句的宾语后带有较长的现在分词短语作定语, 可用于训练学生识别非谓语动词修饰成分。第二分句包含时间状语和介词短语状语, 有助于练习状语识别。短语动词 "back up" 也是一个可练习的知识点。

But when the robots are switched over to bilateral control (by flashing the lights in the room), each autonomous robot tries to keep itself halfway between the robot in front and the one behind; the phantom jams disappear as a result, Horn said.

K段, 第2句

句子成分丰富,包含主语、谓语、宾语、宾语补足语、时间状语从句、方式状语、结果状语等多种成分。特别是 keep 后面的宾语 itself 和宾语补足语 halfway between... 的区分,以及分号连接并列分句的用法,都是值得练习的知识点。引述框架 Horn said 位于句末,也是一个实用的表达模式。覆盖面广,训练价值较高。

Since starting his research on phantom traffic jams, Horn has learned that schools of fish and flocks of birds and bats use similar spacing strategies to avoid hitting each other while swimming or flying in densely packed groups.

L段，第1句

本句结构典型、成分丰富、嵌套层级适中，涉及现在完成时和宾语从句等常考点，且包含省略结构和并列结构，训练价值较高。主干定位难度不高，但嵌套关系需要仔细分析，适合作为中等偏上难度的成分划分和从句识别练习句。对于基础较弱的学习者，这是一个既有挑战性又不至于过难的练习材料。

Unlike bats, birds and fish, however, humans have difficulty judging distances behind them.

M段，第1句

本句包含主语、谓语、宾语、状语（介词短语和插入语）、定语（动名词短语）等多种成分，成分种类较丰富。动名词短语作后置定语是一个值得练习的点，容易与谓语混淆。但句子整体结构相对简单，缺少更难辨析的易错点（如形式主语、宾语补足语、复杂定语从句等），训练价值中等偏上。

The bilateral control approach would include adding rear-facing sensors to determine the distance to the vehicle following a car.

M段，第3句

本句涵盖主谓宾基本框架，同时包含动名词作宾语、不定式作目的状语、现在分词作后置定语三种非谓语动词用法，成分种类丰富，且动名词与不定式的区分、后置定语的识别都是常见易错点，训练价值较高。

But until those systems become standard, human drivers can help reduce phantom traffic jams simply by not following the car in front so closely.

N段，第1句

本句结构在四六级和考研真题中较为典型：前置时间状语从句 + 主句，主句包含情态动词和方式状语，是常见的复合句式。时间状语从句用一般现在时表将来是高频考点。掌握后可应用于多种类似句式。

As Horn argues, "There's absolutely no advantage of tailgating the car in front of you."

N段，第2句

"As" 引导的方式状语从句搭配主句是四六级和考研阅读中常见的引述句式；"There be" 结构加后置定语也是高频考点。掌握后可迁移到大量类似引述和存在句的分析中。

It is possible to nearly double the hourly throughput per lane by adopting bilateral control.

第37题题干

It is + 形容词 + to do 是四六级和考研阅读中的高频句式，非常典型且实用。掌握这个结构后可以迁移到大量类似句子（如 It is important to note that...），代表性较强。

According to Horn, drivers making constant adjustments for equal spacing between cars in a flow of traffic can help reduce phantom traffic jams.

第38题题干

本句体现了四六级和考研阅读中常见的句式特征：主语带现在分词短语作后置定语、情态动词加动词原形构成谓语、句首介词短语作状语。这种 "复杂主语 + 情态动词谓语" 的结构在真题中反复出现，掌握后可大量复用。

Drivers caught up in phantom traffic jams are likely to think an accident has happened or some construction is going on.

第41题题干

本句的结构非常典型：主语带后置定语、"be likely to do" 表可能性、及物动词后接省略 that 的宾语从句、宾语从句内部并列，这些都是四六级和考研阅读中的常见句式，掌握后可以广泛迁移。

In a phantom traffic jam, the cars in the same lane slow down one after another, creating a wave-like effect.

第44题题干

简单句搭配现在分词作伴随或结果状语是四六级和考研阅读中的常见句式，且主语带后置定语、句首地点状语的组合在科技说明文中典型，学习迁移性较强

本篇出现的 96 个英语四级真题高频词

下列单词既在本篇真题中出现，又是 **英语四级** 历年真题的高频词（在该考试真题中出现的句子数均不少于 8）。每个词标注本篇 出现次数与该考试真题句频，点击可查看该词的释义、音标、词形与真题例句。

jam A2

n. 果酱

本篇27次 · 真题 50 句

bilateral C1

adj. 双边的

本篇14次 · 真题 14 句

vehicle B1

n. 交通工具

本篇12次 · 真题 40 句

lane B1

n. 车道

本篇6次 · 真题 34 句

per B1

prep. 每

本篇5次 · 真题 49 句

researcher B2

n. 研究人员

本篇4次 · 真题 239 句

system A2

n. 系统

本篇4次 · 真题 162 句

reduce B1

v. 减少，降低（数量、大小、程度等）

本篇4次 · 真题 118 句

distance A2

n. 距离

本篇4次 · 真题 27 句

cruise B1

v. 乘船游览

本篇4次 · 真题 8 句

effect A2

n. 影响

本篇3次 · 真题 156 句

solution B1

n. 解决办法

本篇3次 · 真题 38 句

highway B1

n. 公路

本篇3次 · 真题 23 句

closely B1

adv. 紧密地

本篇3次 · 真题 21 句

construction

B1

n. 建造

本篇3次 · 真题 21 句

likely

A2

adj. 很可能的

本篇2次 · 真题 224 句

factor

B1

n. 因素

本篇2次 · 真题 77 句

solve

A2

v. 解决 (问题、困难)

本篇2次 · 真题 58 句

strategy

B2

n. 策略

本篇2次 · 真题 53 句

determine

B2

v. 决定

本篇2次 · 真题 51 句

billion

B1

num. 十亿 (1,000,000,000)

本篇2次 · 真题 41 句

particular

B2

adj. 特定的

本篇2次 · 真题 37 句

pattern

B1

n. 模式

本篇2次 · 真题 37 句

ahead

A2

adv. 在前面

本篇2次 · 真题 32 句

eventually

B1

adv. 最终

本篇2次 · 真题 29 句

equal

A2

adj. 相等的

本篇2次 · 真题 23 句

alternative

B2

n. 可供选择的事物

本篇2次 · 真题 19 句

judge

B1

v. 判断, 评判

本篇2次 · 真题 19 句

mystery

B1

n. 神秘的事物; 难以理解的事

本篇2次 · 真题 13 句

flow

B1

v. 流动

本篇2次 · 真题 12 句

existing B1

adj. 现有的

本篇2次·真题10句

halt B2

v. 停止

本篇2次·真题10句

adjustment B2

n. 调整

本篇2次·真题8句

benefit B1

n. 好处

本篇1次·真题169句

design B1

n. 设计

本篇1次·真题132句

million A2

num. 一百万

本篇1次·真题119句

risk A2

n. 风险

本篇1次·真题108句

professor B1

n. 教授 (大学教师的最高职称)

本篇1次·真题105句

decade B1

n. 十年

本篇1次·真题99句

project A2

n. 项目

本篇1次·真题90句

simply B1

adv. 仅仅, 只不过

本篇1次·真题90句

according B1

prep. 根据

本篇1次·真题88句

least A2

det. 最少的

本篇1次·真题84句

major B1

adj. 主要的

本篇1次·真题73句

event A2

n. 事件

本篇1次·真题66句

argue B1

v. 争论

本篇1次·真题58句

economy B1

n. 经济

本篇1次·真题 58 句

enable B1

v. 使能够

本篇1次·真题 58 句

generally B1

adv. 通常，一般地

本篇1次·真题 53 句

approach B1

v. 靠近，接近（在空间或时间上）

本篇1次·真题 50 句

publish B1

v. 出版，发行（书籍、杂志等）

本篇1次·真题 50 句

associate B2

v. 联系

本篇1次·真题 45 句

maintain B1

v. 维持

本篇1次·真题 44 句

adopt B1

v. 采纳

本篇1次·真题 41 句

reality B1

n. 现实

本篇1次·真题 38 句

assume B2

v. 假定

本篇1次·真题 34 句

completely B1

adv. 完全地

本篇1次·真题 34 句

engineering B1

n. 工程学

本篇1次·真题 33 句

track A2

n. 小路

本篇1次·真题 33 句

equipment B1

n. 设备

本篇1次·真题 32 句

journal B1

n. 杂志

本篇1次·真题 29 句

estimate B2

v. 估计

本篇1次·真题 27 句

thus B2

adv. 因此, 所以

本篇1次·真题 26 句

relatively B2

adv. 相对地

本篇1次·真题 24 句

install B1

v. 安装 (设备、软件)

本篇1次·真题 23 句

crowd A2

n. 人群

本篇1次·真题 22 句

disappear A2

v. 消失; 不见

本篇1次·真题 21 句

institute B2

n. 学院

本篇1次·真题 21 句

slightly B1

adv. 稍微, 略微, 轻微地

本篇1次·真题 21 句

constantly B1

adv. 不断地, 持续地

本篇1次·真题 19 句

property B1

n. 财产

本篇1次·真题 19 句

roughly B1

adv. 大约, 大概

本篇1次·真题 19 句

emerge B2

v. 出现; 浮现

本篇1次·真题 18 句

intelligent B1

adj. 聪明的

本篇1次·真题 18 句

transportation B1

n. 交通运输 (系统)

本篇1次·真题 18 句

switch A2

v. 转换

本篇1次·真题 16 句

typical B1

adj. 典型的

本篇1次·真题 15 句

unlike B1

prep. 不像

本篇1次·真题 15 句

accomplish

B2

v. 完成, 实现 (任务、目标)

本篇1次 · 真题 14 句

assistance

B1

n. 帮助

本篇1次 · 真题 14 句

creature

B1

n. 生物

本篇1次 · 真题 14 句

suddenly

A2

adv. 突然地

本篇1次 · 真题 13 句

wave

A2

n. 波浪

本篇1次 · 真题 13 句

absolutely

B1

adv. 完全地

本篇1次 · 真题 12 句

constant

B2

adj. 持续不断的

本篇1次 · 真题 12 句

exact

B2

adj. 精确的

本篇1次 · 真题 12 句

worsen

B2

v. (使)恶化;(使)变得更糟

本篇1次 · 真题 12 句

calculate

B1

v. 计算

本篇1次 · 真题 11 句

poorly

B1

adv. 糟糕地

本篇1次 · 真题 11 句

reasonable

B1

adj. 合理的

本篇1次 · 真题 11 句

resolve

B2

v. 解决 (问题、困难)

本篇1次 · 真题 11 句

apparent

B2

adj. 显而易见的, 明显的

本篇1次 · 真题 9 句

automatically

B1

adv. 自动地

本篇1次 · 真题 9 句

split

B1

v. 分开

本篇1次 · 真题 9 句

developed

B1

adj. 发达的

本篇1次 · 真题 8 句

volume

B1

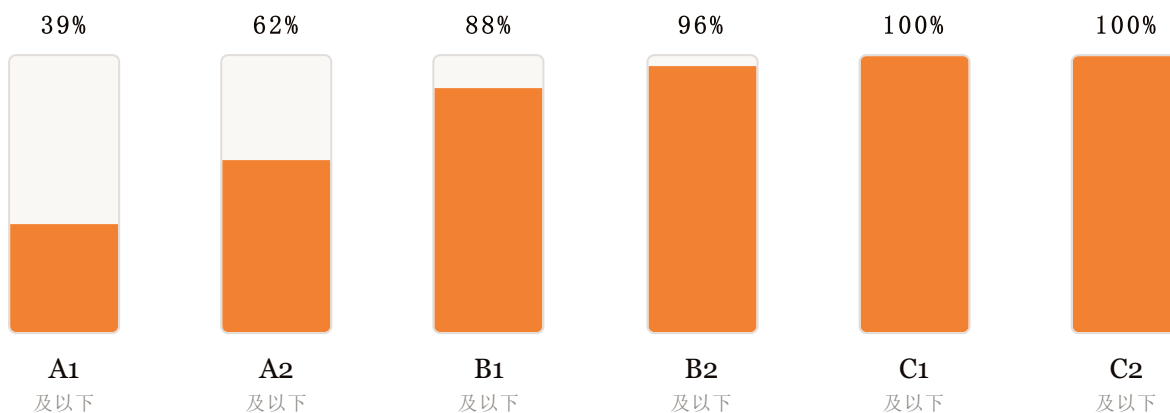
n. 音量

本篇1次 · 真题 8 句

VOCABULARY · 词汇难度分布

全文 311 词按 CEFR 难度累积覆盖

全文去重后共 **311** 个单词，按欧框 CEFR 等级统计。每根柱表示「该等级及以下」的累积占比（CDF），最右一柱为 100%。B2 以上（C1/C2）为高阶词，本篇共 13 个 · 约 4%。



每柱为「按 CEFR 等级及以下」的累积覆盖率（CDF）· 数据为全文去重词 311 个 · 末柱为 100%

去重总词数

311

B2 以上难词

4%

B1 及以下覆盖

88%

英语四级 2025年6月·第3套 · 全卷构成

Part I	写作	题目解析 →
Part II	听力	与2025年6月第2套共用 · 题目解析 →
Part III Section A	完形填空（选词填空）	题目解析 →
Part III Section B	长篇阅读（信息匹配）	本题
Part III Section C	阅读理解（四选一）	题目解析 →
Part III Section C (2)	阅读理解（四选一）	题目解析 →
Part IV	汉译英（段落翻译）	题目解析 →