

2017年12月·第1套 英语四级阅读理解（四选一） 第1篇·46-50 题 答案与解析

QUESTIONS & ANALYSIS · 阅读理解题和解析

阅读理解题和解析 · 46-50 题

本页 46-50 题的答案与逐题解析由懒笔记基于2017年12月·第1套 英语四级阅读理解（四选一）原卷逐题核对整理。与试卷排版同一卷面：先是 Directions 与 3 段原文（段首标 P1-P3 段号、逐段附中文翻译）；之后 5 道题逐题排列，每题英文题干与选项后紧接本题解析——题干与选项中译、答案、题型判定、题干拆句、定位句中英对照与逐选项对错归因。

真题卷第1套(2017-12) · 四级

Part III Section C (1)

Directions: *There are 2 passages in this section. Each passage is followed by some questions or unfinished statements. For each of them there are four choices marked A), B), C) and D). You should decide on the best choice and mark the corresponding letter on **Answer Sheet 2** with a single line through the centre.*

Passage One

Questions 46 to 50 are based on the following passage.

P1 That people often experience trouble sleeping in a different bed in unfamiliar surroundings is a phenomenon known as the "first-night" effect. If a person stays in the same room the following night they tend to sleep more soundly. Yuka Sasaki and her colleagues at Brown University set out to investigate the origins of this effect.

人们在陌生环境中换一张不同的床常常会遇到睡眠困难，这种现象被称为“第一晚”效应。如果一个人第二晚待在同一个房间，他们往往会睡得更香。Brown University的Yuka Sasaki和她的同事们开始研究这种效应的起源。

P2 Dr. Sasaki knew the first-night effect probably has something to do with how humans evolved. The puzzle was what benefit would be gained from it when performance might be affected the following day. She also knew from previous work conducted on birds and dolphins that these animals put half of their brains to sleep at a time so that they can rest while remaining alert enough to avoid predators(捕食者). This led her to wonder if people might be doing the same thing. To take a closer look, her team studied 35 healthy people as they slept in the unfamiliar environment of the university's Department of Psychological Sciences. The participants each slept in the department for two nights and were carefully monitored with techniques that looked at the activity of their brains. Dr. Sasaki found, as expected, the participants slept less well on their first night than they did on their second, taking more than twice as long to fall asleep and sleeping less overall. During deep sleep, the participants' brains behaved in a

similar manner seen in birds and dolphins. On the first night only, the left hemispheres(半球) of their brains did not sleep nearly as deeply as their right hemispheres did.

Sasaki博士知道第一晚效应可能与人类的进化方式有关。令人困惑的是,当第二天的表现可能受到影响时,从中能获得什么益处。她还从之前对鸟类和海豚进行的研究中了解到,这些动物每次让一半大脑进入睡眠,这样它们可以在休息的同时保持足够的警觉以避开捕食者。这让她想知道人类是否也在做同样的事情。为了更仔细地观察,她的团队研究了35名健康人在该大学心理科学系这一陌生环境中的睡眠情况。参与者每人在该系睡了两晚,并通过观察他们大脑活动的技术进行仔细监测。正如预期的那样,Sasaki博士发现,参与者第一晚的睡眠质量不如第二晚,入睡时间是第二晚的两倍多,总体睡眠时间也更少。在深度睡眠期间,参与者的的大脑表现出与鸟类和海豚相似的行为方式。仅在第一晚,他们大脑的左半球睡眠深度远不如右半球。

P3 Curious if the left hemispheres were indeed remaining awake to process information detected in the surrounding environment, Dr. Sasaki re-ran the experiment while presenting the sleeping participants with a mix of regularly timed beeps(蜂鸣声) of the same tone and irregular beeps of a different tone during the night. She worked out that, if the left hemisphere was staying alert to keep guard in a strange environment, then it would react to the irregular beeps by stirring people from sleep and would ignore the regularly timed ones. This is precisely what she found.

为了确认左半球是否确实保持清醒以处理周围环境中检测到的信息,Sasaki博士重新进行了实验,在夜间向睡眠中的参与者播放定时规律的相同音调蜂鸣声和不规律的不同音调蜂鸣声的混合声音。她推断,如果左半球在陌生环境中保持警觉以守卫,那么它会对不规律的蜂鸣声做出反应,将人们从睡眠中唤醒,而会忽略定时规律的蜂鸣声。这正是她发现的结果。

题目与逐题解析

46. What did researchers find puzzling about the first-night effect?

- A) To what extent it can trouble people.
- B) What role it has played in evolution.
- C) What circumstances may trigger it.
- D) In what way it can be beneficial.

关于第一晚效应,研究人员发现什么令人困惑?

- A) 它能在多大程度上困扰人们。
- B) 它在进化中扮演了什么角色。
- C) 什么情况可能触发它。
- D) 它以何种方式有益。

【答案】 D (细节题)

【判型】 What did researchers find puzzling about the first-night effect? 问的是研究者具体困惑于哪一点, 是对原文里某句话的客观转述, 不需要推断或概括全文。

【拆句】 主干是 What did researchers find puzzling about the first-night effect?——这是 find + 宾语 + 宾补结构 (find sth. puzzling), 不是 find sth. that 从句; 考生易把 puzzling 当成修饰 effect 的定语, 要看清它是 find 的宾补。

【定位】 The puzzle was what benefit would be gained from it when performance might be affected the following day.

令人困惑之处在于：当第二天的表现可能受影响时，这种「第一晚睡不好」到底能带来什么好处。

【选项】 A) **无中生有**

To what extent it can trouble people 谈的是这种效应「困扰人到什么程度」，但原文从未量化或讨论困扰的程度，只在 experience trouble sleeping 提了一下事实，没说「多严重」。

B) **偷换概念**

What role it has played in evolution 谈的是它在演化中扮演什么角色；原文确有 has something to do with how humans evolved，但这是研究者的「假设/猜测」，不是她「困惑」之处——困惑是 what benefit would be gained from it。

C) **无中生有**

What circumstances may trigger it 谈的是什么情境会触发这种效应；原文 in unfamiliar surroundings 已经直接给出触发条件，研究者根本不困惑这一点，更没把它列为 puzzle。

D) **✓ 正确**

what benefit would be gained from it ↔ **In what way it can be beneficial**

预判答案是「困惑于现象能带来什么好处」，In what way it can be beneficial 把 benefit 名词改写为 beneficial 形容词，语义与定位句完全等值，直接锁定。

47. What do we learn about Dr. Yuka Sasaki doing her research?

- A) She found birds and dolphins remain alert while asleep.
- B) She found birds and dolphins sleep in much the same way.
- C) She got some idea from previous studies on birds and dolphins.
- D) She conducted studies on birds' and dolphins' sleeping patterns.

关于 Yuka Sasaki 博士进行研究,我们了解到什么?

- A) 她发现鸟类和海豚在睡眠时保持警觉。
- B) 她发现鸟类和海豚的睡眠方式大体相同。
- C) 她从之前关于鸟类和海豚的研究中获得了一些想法。
- D) 她对鸟类和海豚的睡眠模式进行了研究。

【答案】 C (细节题)

【判型】 What do we learn about Dr. Yuka Sasaki doing her research? 问的是研究过程中的客观事实，不带 infer/imply。

【拆句】 doing her research 是现在分词短语作状语，修饰 Dr. Yuka Sasaki，相当于 when she was doing her research；不是名词短语，不要错读成「研究本身」。

【定位】 She also knew from previous work conducted on birds and dolphins that these animals put half of their brains to sleep at a time so that they can rest while remaining alert enough to avoid predators(捕食者). This led her to wonder if people might be doing the same thing.
她还从此前关于鸟和海豚的研究中得知：这些动物一次只让一半大脑睡觉，从而既能休息又能保持警觉以躲避捕食者。这让她猜想人是否也是如此。

【选项】 A) 以偏概全

She found birds and dolphins remain alert while asleep 把原文 put half of their brains to sleep at a time so that they can rest while remaining alert 的核心机制「半脑睡」省略掉，只留下结果「保持警觉」；且主语动作错了——这不是 Sasaki 自己 found，而是先前研究的结论。

B) 无中生有

She found birds and dolphins sleep in much the same way 暗示鸟和海豚被研究者比较过其睡眠方式的异同；原文只把它们并列举例（都是「半脑睡」的代表），既没说她自己发现，也没说「方式相同」是研究结论。

C) ✓ 正确

She also knew from previous work conducted on birds and dolphins ↔

She got some idea from previous studies on birds and dolphins

预判是「从鸟海豚旧研究获得灵感」，She got some idea from previous studies on birds and dolphins 在主体动作 (got idea←knew、led to wonder)、信息来源 (previous studies←previous work)、对象 (birds and dolphins) 三处全部等值，锁定。

D) 与原文相反

She conducted studies on birds' and dolphins' sleeping patterns 把她说成了鸟海豚研究的执行者；原文 previous work conducted on birds and dolphins 的「conducted」用的是过去分词作后置定语，意为「（由别人）做过的」先前研究，她只是「got idea from」。

48. What did Dr. Sasaki do when she first did her experiment?

- A) She monitored the brain activity of participants sleeping in a new environment.
- B) She recruited 35 participants from her Department of Psychological Sciences.
- C) She studied the differences between the two sides of participants' brains.
- D) She tested her findings about birds and dolphins on human subjects.

Sasaki 博士第一次做实验时做了什么？

- A) 她监测了在新环境中睡觉的参与者的脑部活动。
- B) 她从心理科学系招募了 35 名参与者。
- C) 她研究了参与者大脑两侧之间的差异。
- D) 她在人类受试者身上测试了她关于鸟类和海豚的发现。

【答案】 A (细节题)

【判型】 What did Dr. Sasaki do when she first did her experiment? 问的是具体行动，不是观点或结论。

【拆句】 when she first did her experiment 是时间状语从句，first 是副词修饰 did，意为「第一次做」；不要把它读成形容词 first experiment（首个实验）。

【定位】 To take a closer look, her team studied 35 healthy people as they slept in the unfamiliar environment of the university's Department of Psychological Sciences. The participants each slept in the department for two nights and were carefully monitored with techniques that looked at the activity of their brains.

为了更深入地考察，她的团队让 35 位健康受试者在该大学心理科学系这个陌生环境中睡觉。每位受试者在系里睡了两周，并由能监测大脑活动的技术对他们进行了仔细记录。

【选项】 A) ✓ 正确

studied 35 healthy people as they slept in the unfamiliar environment ↔

participants sleeping in a new environment

monitored with techniques that looked at the activity of their brains ↔

monitored the brain activity

预判是「监测陌生环境受试者脑活动」，She monitored the brain activity of participants sleeping in a new environment 在动作（monitored）、对象（brain activity）、环境（new environment）三处全部对应原文，锁定。

B) 偷换概念

She recruited 35 participants from her Department of Psychological Sciences 暗示这 35 人是从心理科学系内部「招募」的；原文 slept in the unfamiliar environment of the university's Department of Psychological Sciences 表明心理科学系只是「实验地点」（且是受试者眼里的陌生环境），不是招募来源。

C) 答非所问

She studied the differences between the two sides of participants' brains 描述的是研究的发现内容（左右脑差异），原文 On the first night only, the left hemispheres(半球) of their brains did not sleep nearly as deeply as their right hemispheres did 是 found 的结果，不是 first did 的设计动作；题干问的是动作不是发现。

D) 过度推断

She tested her findings about birds and dolphins on human subjects 把「鸟海豚的结论」说成她「自己的 findings」，并升级为「拿来测人」；原文 previous work conducted on birds and dolphins 表明鸟海豚研究不是她做的，她只是受启发去 wonder if people might be doing the same thing，并非「测试已有发现」。

49. What did Dr. Sasaki do when re-running her experiment?

- A) She analyzed the negative effect of irregular tones on brains.
- B) She recorded participants' adaptation to changed environment.
- C) She exposed her participants to two different stimuli.
- D) She compared the responses of different participants.

Sasaki 博士重新进行实验时做了什么？

- A) 她分析了不规则音调对大脑的负面影响。
- B) 她记录了参与者对改变环境的适应情况。
- C) 她让参与者接触两种不同的刺激。
- D) 她比较了不同参与者的反应。

【答案】 C (细节题)

【判型】 What did Dr. Sasaki do when re-running her experiment? 问的同样是一个具体动作，对应第 3 段的实验设计。

【拆句】 when re-running her experiment 是 when 引导的省略状语从句，完整形式为 when she was re-running her experiment，主语与主句一致而被省略——四级常见省略，不要因没看到主语就读懵。

【定位】 Dr. Sasaki re-ran the experiment while presenting the sleeping participants with a mix of regularly timed beeps(蜂鸣声) of the same tone and irregular beeps of a different tone during the night.

Sasaki 博士重做了这个实验：夜间向睡着的受试者播放一组按规律间隔响起、且音调相同的蜂鸣声，再混入一些不规则间隔、音调不同的蜂鸣声。

【选项】 A) **过度推断**

She analyzed the negative effect of irregular tones on brains 把蜂鸣的作用定性为「负面 negative」、动作定性为「分析 analyzed」；原文只描述实验设计（播放）和发现（左半脑响应），并未说不规律蜂鸣有「负面效应」，更未说她「分析」其负面效应。

B) **无中生有**

She recorded participants' adaptation to changed environment 谈的是「适应环境变化」；原文第二次实验的环境没有变化（仍是同一陌生环境），变化的是声音刺激；也没有 recorded adaptation 的对应表述。

C) **✓ 正确**

a mix of regularly timed beeps(蜂鸣声) of the same tone and irregular beeps of a different tone

↔ **two different stimuli**

presenting the sleeping participants ↔ **exposed her participants to**

预判「播放两种蜂鸣」，She exposed her participants to two different stimuli 用 expose to 替换 presenting with、用 two different stimuli 替换 a mix of regularly timed and irregular beeps，是定位句的标准同义替换。

D) **偷换概念**

She compared the responses of different participants 谈的是比较不同受试者的反应；原文 react to the irregular beeps by stirring people from sleep and would ignore the regularly timed ones 比较的是「同一受试者对不同刺激的反应」（同人不同刺激），而非「不同人对同一刺激的反应」。

50. What did Dr. Sasaki find about the participants in her experiment?

- A) They tended to enjoy certain tones more than others.
- B) They tended to perceive irregular beeps as a threat.
- C) They felt sleepy when exposed to regular beeps.
- D) They differed in their tolerance of irregular tones.

Sasaki 博士对她实验中的参与者有什么发现？

- A) 他们倾向于比其他音调更喜欢某些音调。 B) 他们倾向于将不规则的哔哔声视为威胁。
- C) 他们在接触规律的哔哔声时感到困倦。 D) 他们对不规则音调的容忍度存在差异。

【答案】 **B** （细节题）

【判型】 What did Dr. Sasaki find about the participants in her experiment? 问的是研究的客观发现，是对原文结论的转述。

【拆句】 find about 是「关于.....的发现」，about 在这里管辖 the participants in her experiment; 不要把 find 读成「找到（某物）」，这里是「发现/得出（某结论）」。

【定位】 She worked out that, if the left hemisphere was staying alert to keep guard in a strange environment, then it would react to the irregular beeps by stirring people from sleep and would ignore the regularly timed ones. This is precisely what she found.

她推断：如果左半球确实在陌生环境中保持警觉、负责放哨，那么它就会对不规律蜂鸣做出反应、把人惊醒，而对规律蜂鸣置之不理。事实正是如此。

【选项】 A) 无中生有

They tended to enjoy certain tones more than others 谈受试者「更喜欢某种音调」；原文从未涉及喜恶/偏好，只有 react 与 ignore 两种行为反应，更不含享受 enjoy 的语义。

B) ✓ 正确

staying alert to keep guard in a strange environment ↔ perceive irregular beeps as a threat
react to the irregular beeps by stirring people from sleep ↔

perceive irregular beeps as a threat

预判「把不规律蜂鸣当威胁」，They tended to perceive irregular beeps as a threat
用 perceive as 把原文的行为反应 react+keep guard 翻译为认知判断，是定位句的同义替换，锁定。

C) 与原文相反

They felt sleepy when exposed to regular beeps 说规律蜂鸣让人困倦/想睡；原文 would ignore the regularly timed ones 表明大脑对规律蜂鸣是「忽略」、不是「催眠」，受试者本来就在睡觉，不存在「变得困倦」的反应。

D) 无中生有

They differed in their tolerance of irregular tones 谈不同受试者「对不规律音调的耐受度不同」；原文把全体受试者作为整体描述 (react to the irregular beeps by stirring people from sleep)，没有提及个体差异、也没有 tolerance 这一维度。

SENTENCE INSIGHTS • 句子精讲

6 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。

Yuka Sasaki and her colleagues at Brown University set out to investigate the origins of this effect.

第1段，第3句

简单句搭配不定式作目的状语是常见句式，在学术写作和考试阅读中经常出现。但主语中的并列结构和短语动词 "set out" 的用法具有一定代表性，掌握后可复用到类似表达。

She also knew from previous work conducted on birds and dolphins that these animals put half of their brains to sleep at a time so that they can rest while remaining alert enough to avoid predators(捕食者).

第2段，第3句

全句包含四层结构:主句包含宾语从句,宾语从句内嵌套目的状语从句,目的状语从句内又嵌套时间状语从句,形成三层嵌套。各层之间通过that、so that、while等连接词引出,每层都有完整的主谓结构或省略主语的分词结构。这种层层咬合的嵌套关系要求读者反复回溯才能理清各从句的归属和修饰对象,对基础较弱的学习者构成较大认知负担。

Dr. Sasaki found, as expected, the participants slept less well on their first night than they did on their second, taking more than twice as long to fall asleep and sleeping less overall.

第2段，第7句

宾语从句 + 比较状语从句 + 现在分词作状语，是四六级和考研阅读中的高频句式。省略引导词that 和比较从句中承前省略谓语都是常考考点，句子结构具有很强的代表性和迁移价值

Curious if the left hemispheres were indeed remaining awake to process information detected in the surrounding environment, Dr. Sasaki re-ran the experiment while presenting the sleeping participants with a mix of regularly timed beeps(蜂鸣声) of the same tone and irregular beeps of a different tone during the night.

第3段，第1句

本句在主干识别、分句嵌套、时态区分、成分划分等方面都提供了适度挑战，且涉及的结构（双宾语、过去进行时、“while”从句）都是考试常见类型。虽然不算最复杂的句子，但作为训练材料覆盖面广、典型性强，适合作为进阶练习。

She worked out that, if the left hemisphere was staying alert to keep guard in a strange environment, then it would react to the irregular beeps by stirring people from sleep and would ignore the regularly timed ones.

第3段，第2句

高度典型的考研阅读句式:主句 + 宾语从句 + 内嵌条件从句,宾语从句内使用 if-then 条件逻辑和并列谓语,大量介词短语和不定式修饰。这种多层嵌套、条件推理加并列结构的句式在真题中频繁出现,掌握后可迁移到大量类似长难句

She found birds and dolphins remain alert while asleep.

第47题, A

感官动词接宾语从句(省略 that)+ 宾语从句内嵌套状语从句的结构,在四六级和考研阅读中较为常见,尤其是科普、研究类文本中描述发现或观察结果时常使用此句式,学习后有较好的迁移性

HIGH-FREQUENCY • 真题高频词

本篇出现的 56 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。

participant

B2

n. 参与者

本篇11次 · 真题 117 句

dolphin

A2

n. 海豚

本篇7次 · 真题 23 句

effect

A2

n. 影响

本篇5次 · 真题 156 句

tone

B1

n. 语气, 口气

本篇5次 · 真题 9 句

irregular

B2

adj. 不规则的;无规律的

本篇5次 · 真题 8 句

would

A1

aux. (will 的过去式) 将要, 会

本篇3次 · 真题 466 句

tend

B1

v. 倾向于, 往往会

本篇3次 · 真题 137 句

department

A2

n. 部门

本篇3次 · 真题 66 句

alert

B2

adj. 警觉的

本篇3次 · 真题 17 句

less

A1

det. 较少的

本篇2次 · 真题 224 句

conduct B2

v. 组织并实施

本篇2次·真题 45 句

previous B1

adj. 先前的

本篇2次·真题 37 句

regularly A2

adv. 经常地

本篇2次·真题 27 句

psychological B2

adj. 心理的

本篇2次·真题 25 句

expose B2

v. 使暴露

本篇2次·真题 20 句

surrounding B1

adj. 周围的, 附近的

本篇2次·真题 8 句

researcher B2

n. 研究人员

本篇1次·真题 239 句

benefit B1

n. 好处

本篇1次·真题 169 句

affect B1

v. 影响

本篇1次·真题 113 句

process B1

n. 过程

本篇1次·真题 108 句

finding B2

n. 调查结果

本篇1次·真题 99 句

performance B1

n. 表演

本篇1次·真题 66 句

gain B1

v. 获得;赢得

本篇1次·真题 64 句

negative B1

adj. 否定的

本篇1次·真题 57 句

colleague B1

n. 同事

本篇1次·真题 48 句

response B1

n. 回答

本篇1次·真题 47 句

overall B1

adj. 总体的

本篇1次·真题 39 句

regular B1

adj. 经常的

本篇1次·真题 38 句

pattern B1

n. 模式

本篇1次·真题 37 句

differ B1

v. 不同, 有区别

本篇1次·真题 30 句

threat B1

n. 威胁

本篇1次·真题 28 句

ignore B1

v. 忽视;不理睬

本篇1次·真题 26 句

indeed B1

adv. 确实, 的确 (强调肯定)

本篇1次·真题 25 句

carefully A2

adv. 仔细地

本篇1次·真题 24 句

curious B1

adj. 好奇的

本篇1次·真题 22 句

behave B1

v. 表现, 举止

本篇1次·真题 21 句

investigate B2

v. 调查

本篇1次·真题 21 句

perceive B2

v. 理解, 领悟 (某事的性质或意义)

本篇1次·真题 21 句

deeply B1

adv. 深深地

本篇1次·真题 20 句

technique B1

n. 技术

本篇1次·真题 18 句

evolve B2

v. 逐渐发展;进化

本篇1次·真题 17 句

circumstance B2

n. 情况

本篇1次·真题 16 句

following

B1

adj. 接下来的

本篇1次 · 真题 16 句

analyze

B2

v. 分析

本篇1次 · 真题 15 句

beneficial

B2

adj. 有益的

本篇1次 · 真题 15 句

puzzle

B1

n. 谜

本篇1次 · 真题 15 句

detect

B2

v. 发现, 察觉 (难以察觉的事物)

本篇1次 · 真题 14 句

mix

A2

v. 混合

本篇1次 · 真题 13 句

phenomenon

B2

n. 现象

本篇1次 · 真题 13 句

react

B1

v. 作出反应

本篇1次 · 真题 12 句

manner

B1

n. 方式

本篇1次 · 真题 10 句

recruit

B2

v. 招募

本篇1次 · 真题 10 句

extent

B2

n. 程度

本篇1次 · 真题 9 句

trigger

B2

v. 引发

本篇1次 · 真题 9 句

origin

B2

n. 起源

本篇1次 · 真题 8 句

precisely

B2

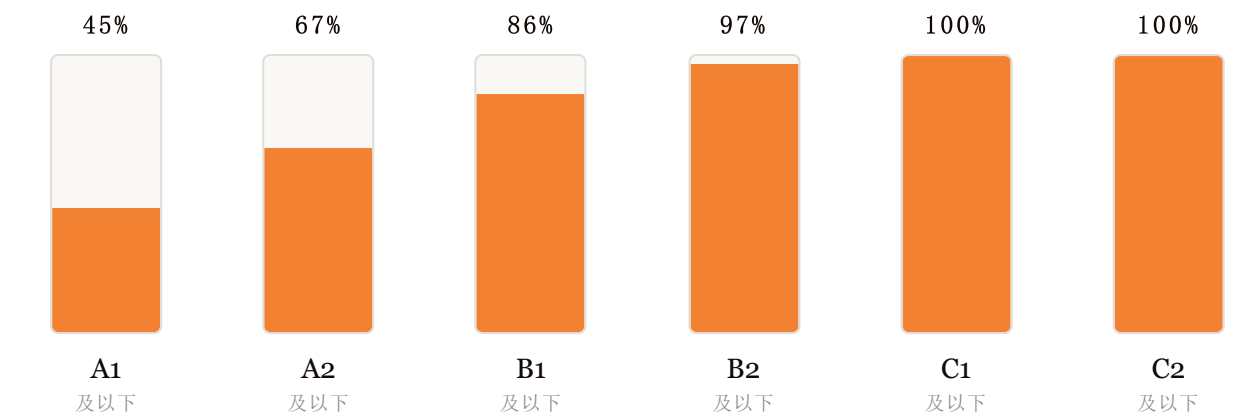
adv. 精确地, 准确地

本篇1次 · 真题 8 句

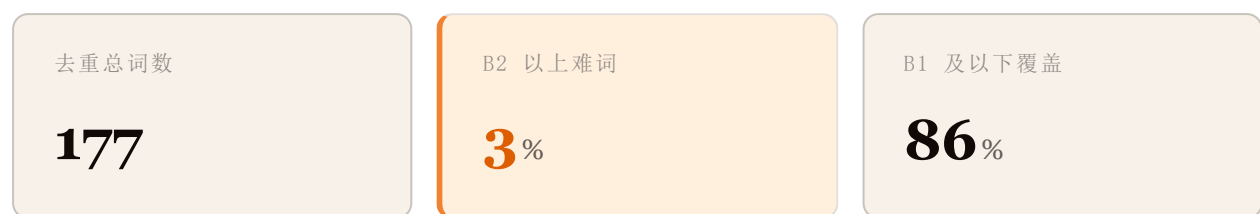
VOCABULARY · 词汇难度分布

全文 177 词按 CEFR 难度累积覆盖

全文去重后共 **177** 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 5 个 · 约 3%。



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 177 个 · 末柱为 100%



英语四级 2017年12月·第1套 · 全卷构成

Part I	写作	题目解析 →
Part II	听力	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）	题目解析 →
Part III Section C (1)	阅读理解（四选一）	本题
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 →