

Lecture 2

- Ways to improve learning in science and language

Ways to improve learning
science and language



臺灣大學

National Taiwan University

內蒙古農大普通生物學雙語課程
當代農業生技

(Bruce) Chun-Neng Wang

王俊能

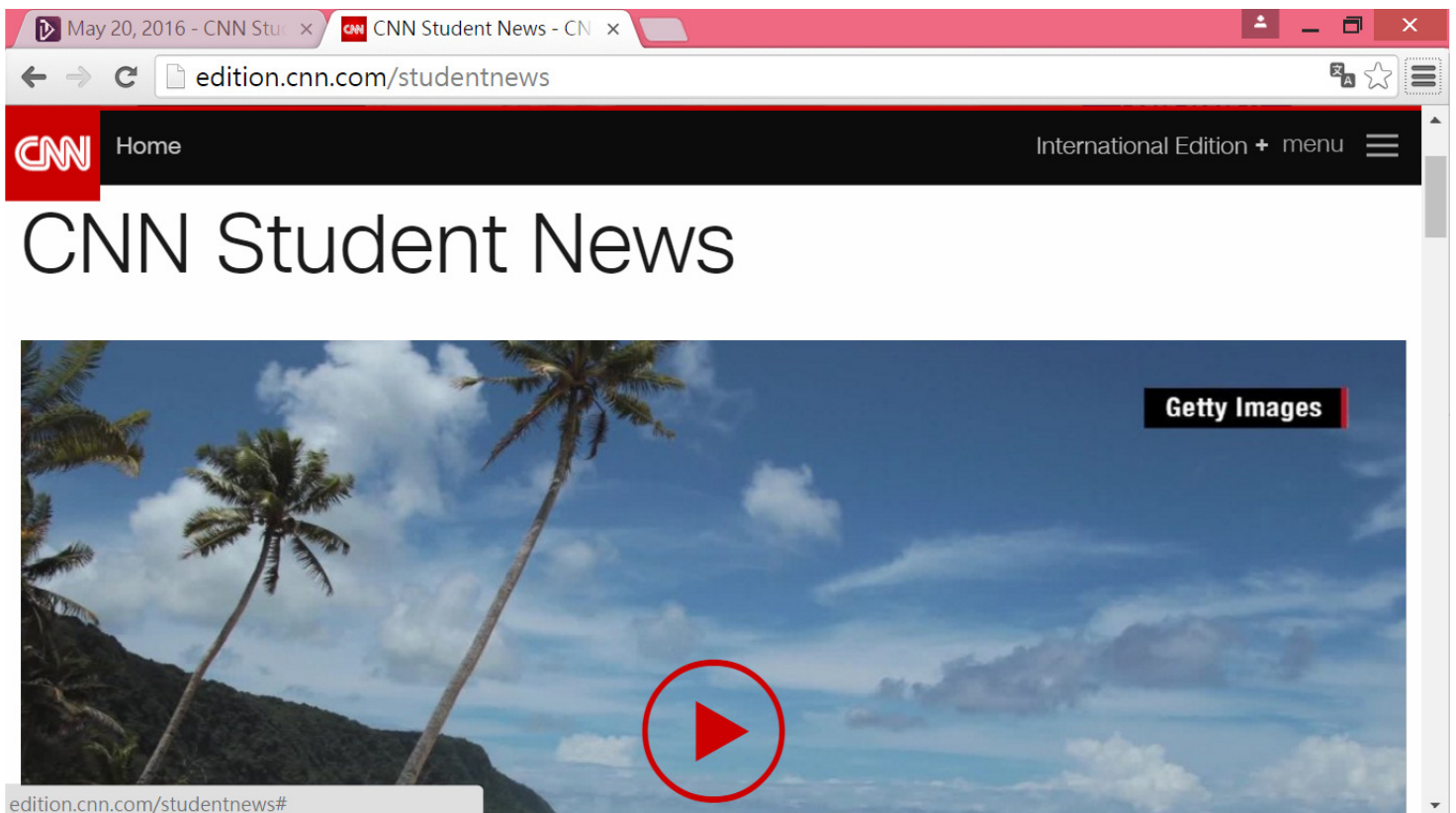
Email: leafy@ntu.edu.tw



CNN students NEWS

(<http://edition.cnn.com/studentnews>)

- CNN Student News is a ten-minute, commercial-free, daily news program designed for middle and high school classes. It is produced by the journalists at CNN. This award-winning show and its companion website are available free of charge throughout the school year.





May 20, 2016 - CNN Student News with subtitle

https://tw.voicetube.com/videos/38094?ref=cnn_student_news

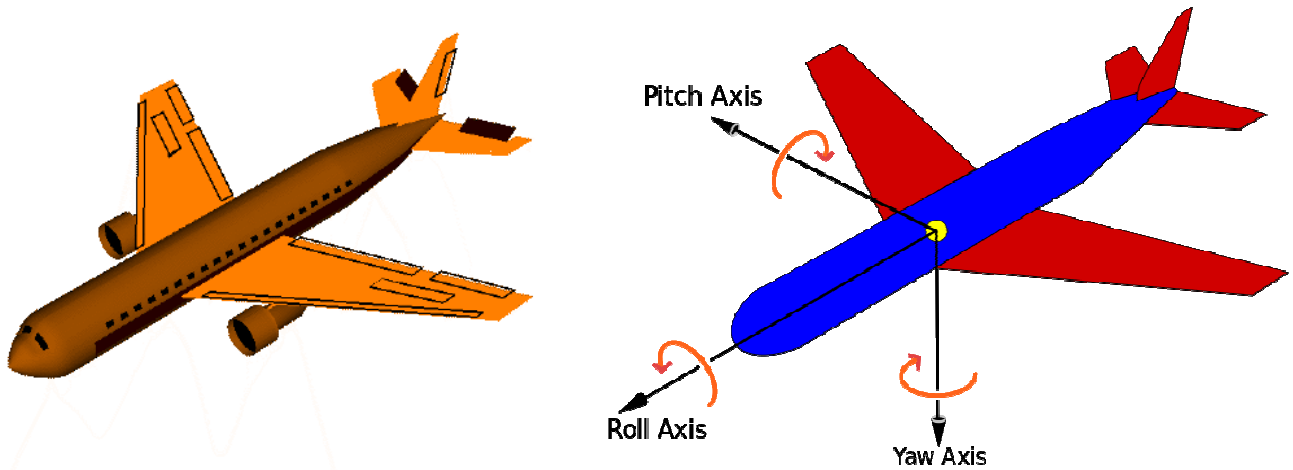


5W 1H – critical thinking

- What happened to EgyptAir Flight?
- Why was that happened?
- Can you list up at least three keywords that you think are **most relevant** to describe this?
- **Use your own words** to explain these keywords.

- Wreckage, crash, blackbox (conversations vs. flight data), survivors (passenger), pitch, stall

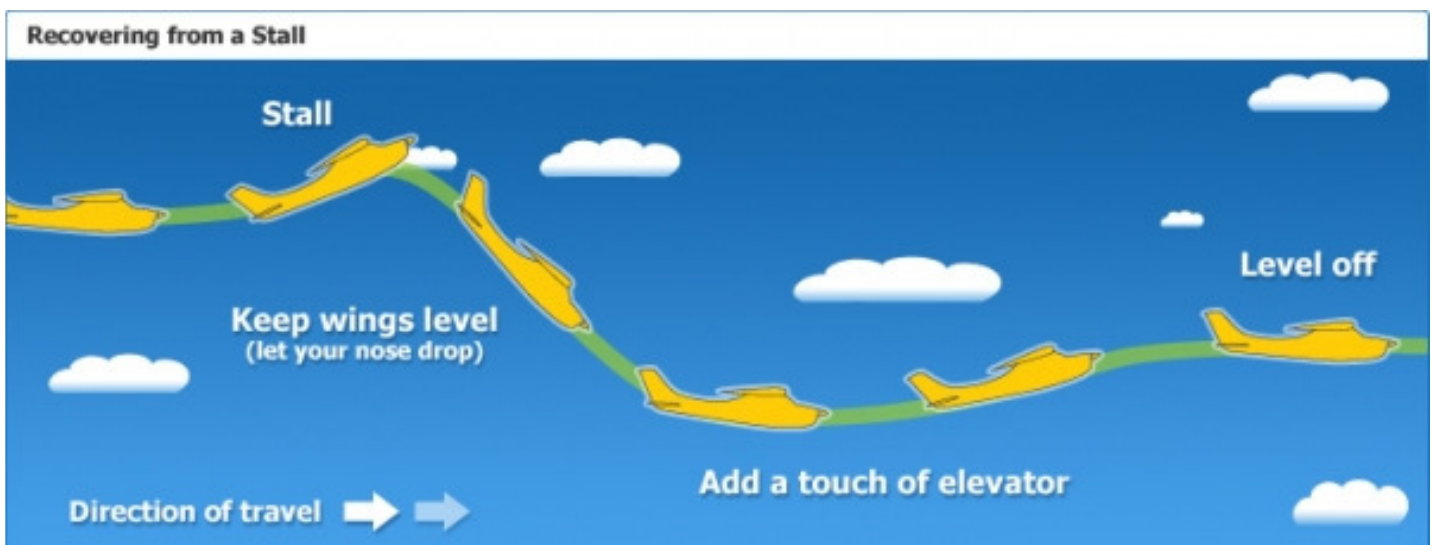
Pitch + flight



In flight, any aircraft will rotate about its center of gravity, a point which is the average location of the mass of the aircraft. We can define a three dimensional coordinate system through the center of gravity with each axis of this coordinate system perpendicular to the other two axes. We can then define the orientation of the aircraft by the amount of rotation of the parts of the aircraft along these **principal axes**. The **pitch axis** is perpendicular to the aircraft centerline and lies in the plane of the wings. A **pitch motion** is an up or down movement of the nose of the aircraft as shown in the animation.

Stall + flight

- A **stall** is what happens when an aerofoil can not make enough lift to keep the aircraft in level flight.
- Stalling is risky and can be dangerous during low-level flying



http://www.bbc.com/news Home - BBC News

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Google 這是英文網頁, 需要「Google 工具列」為您翻譯嗎? 瞭解詳情 不是「英文」的網頁嗎? 協助我們進行改進

BBC News Sport Weather More

NEWS


Home Video World Asia UK Business Tech

6 Minute | X Q

- 6 Minute English
- 6 Minute Grammar
- 6 Minute Vocabulary
- 60 Minutes
- BBC Minute
- 606

Afghans confirm Taliban leader death

Afghanistan's spy agency confirms Taliban leader Mullah



http://www.bbc.co.uk/programmes/p03vmryk BBC Radio - 6 Minute English

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BBC WORLD SERVICE

6 Minute English

Home Episodes Podcast



BBC 6 Minute English - Conspiracy theories

<https://tw.voicetube.com/videos/38133?ref=bbc>



The screenshot shows a VoicTube video player interface. The video title is "FAKED MOON LANDING?". The transcript on the right side of the player reads:

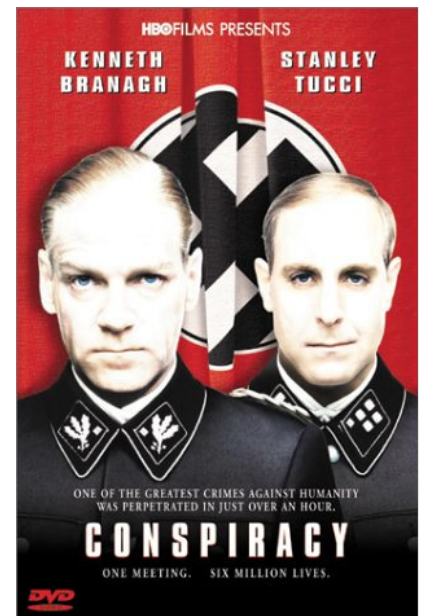
Alice: Hello and welcome to 6 Minute English. I'm Alice.
Rob: And I'm Rob. Hey Alice...
Alice: I read in the paper recently that the substance called "fluoride" might be bad for our health.
Rob: But it's in nearly every brand of toothpaste, isn't it?
Alice: You shouldn't believe everything you hear, Rob.
Rob: Fluoride protects our teeth against decay.
Alice: But there's a theory that drug companies are using fluoride to affect our brains.

Below the transcript, there is a search bar and a list of words with their Chinese translations:

- conspiracy: 同謀, 陰謀, 反叛
- fake: 假貨, 欺騙, 一卷繩索(a.), 假的(vt.), 假造, 仿造, 偽造, 偽裝

Summary (0-1:30)

- 5W 1h: What does this story talk about?
- Why do speaker think moon landing is a fake
- Keywords (words appear twice or more) : **fake**, **moon landing**, **conspiracy** (pirate)
- Use your own word to re-explain these words (**if not sure, listen again**)





FAKED MOON LANDING?

and there's no air on the moon so the US government must've faked it!

- ▶ I wonder about television foot
- ▶ the American
- ▶ and there's no
- ♥ fluttering
我的半字座
載入中...
- ▶ that isn't true
- ▶ I didn't realize
- ▶ And that mean something.
- ▶ Rob: I just like

單字 筆記 佳句

- ♥ fluttering (鳥)振翼, 拍翅
- ♥ fluoride 氟化物



- ▶ Alice: To fake something means to make something that isn't true appear to be real.
- ▶ I didn't realize you were so gullible Rob.
- ▶ And that means easily persuaded to believe something.
- ▶ Rob: I just like to question things.
- ▶ Alice: Oh, I see...
- ▶ Rob: I have a healthy distrust of authority, Alice.
- ▶ And today we're talking about conspiracy theories.
- ▶ A conspiracy theory is a belief that some organization or group of people

單字 筆記 佳句 搜尋單字

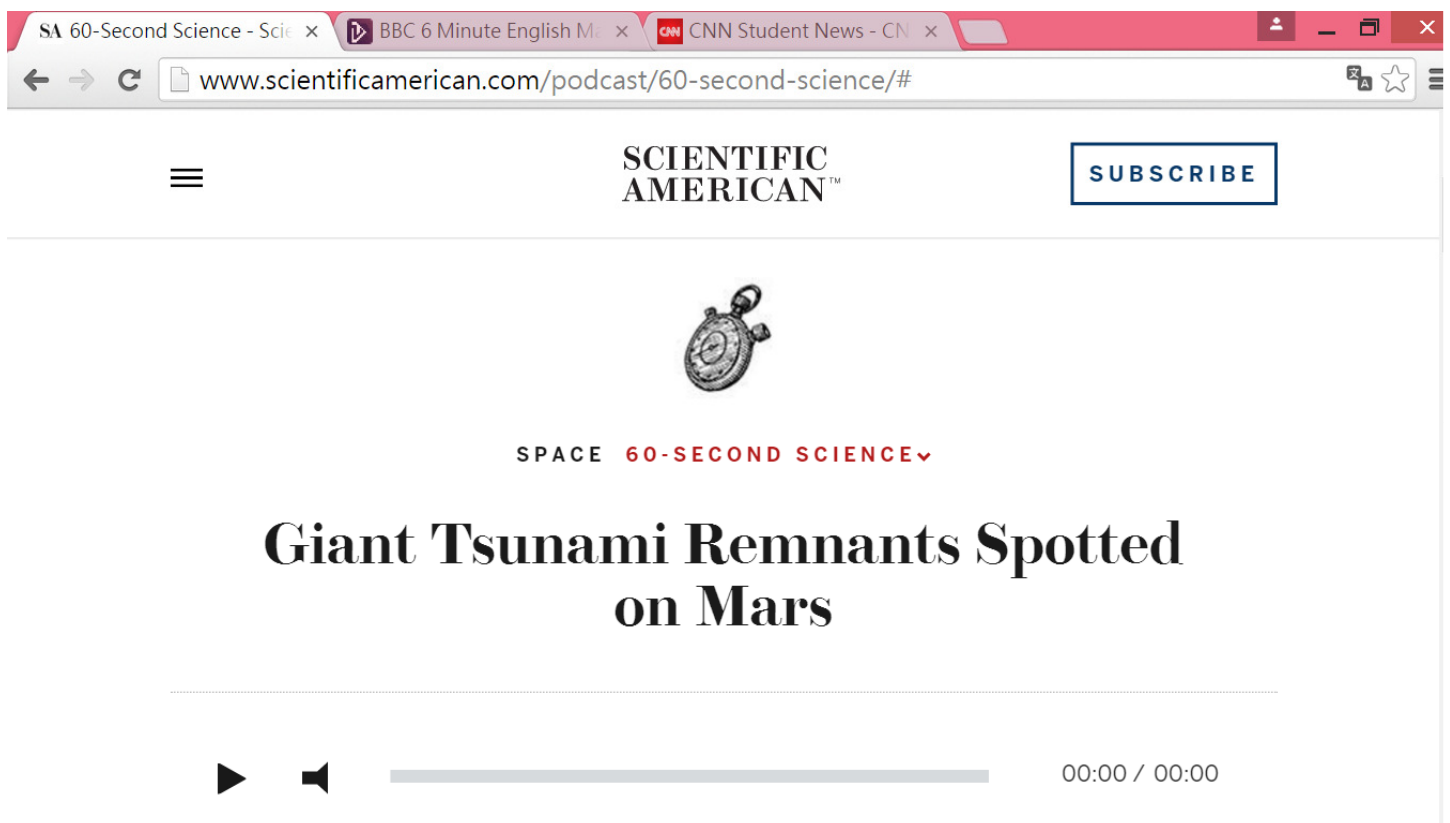
- ♥ fluttering (鳥)振翼, 拍翅
- ♥ fluoride 氟化物

Assassination of John Kennedy

Keywords review (@ 6 mins)

- Susceptible
- Cover-up
- Trait
- Paranormal
- unsubstantiated

www.scientificamerican.com/podcast/60-second-science

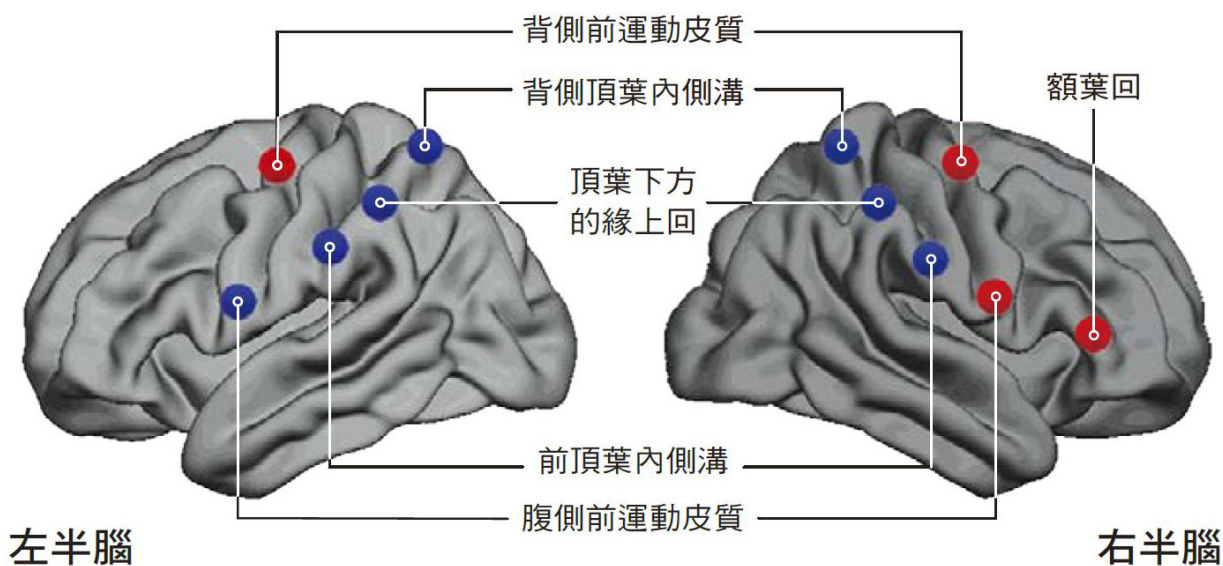


The screenshot shows a web browser window with several tabs open: 'SA 60-Second Science - Sci...', 'BBC 6 Minute English M...', and 'CNN Student News - CN...'. The address bar displays the URL 'www.scientificamerican.com/podcast/60-second-science/#'. The page content includes the Scientific American logo, a 'SUBSCRIBE' button, a pocket watch icon, and the text 'SPACE 60-SECOND SCIENCE'. The main headline reads 'Giant Tsunami Remnants Spotted on Mars'. At the bottom, there is a video player interface with play and pause buttons and a progress bar showing '00:00 / 00:00'.

Scientific American創刊於1845年，是全球科普雜誌的第一品牌。全球已有多個語版，是最常被全球媒體、重要報告引用的科學雜誌，也是公認最能掌握全球科學發展趨勢的科普雜誌。

《科學人》雜誌內容涵蓋多元面向，串聯生物學、宇宙學、醫學、物理學、神經科學、環境科學等，報導全球最新的科學、技術發展及產業趨勢。

<http://sa.ylib.com/MagCont.aspx?Unit=featurearticles&id=2955>



我們懷疑，學習打製石器也會導致某種程度的神經重新連結。若真如此，我們就想知道哪些神經網路會改變。如果我們的想法正確，我們會希望知道製作工具是否能夠造成小規模的大腦結構變化，就像人類當初在演化過程中，大腦出現改變一樣。

結果十分確切，大腦確實會改變：我們在PET和MRI中發現，練習打製石器會讓額葉和頂葉區之間的白質纖維增加，包括前額葉的右下額葉回，那是負責認知操控的關鍵區域。大腦改變的程度可以透過受試者練習的時數來進行預測，練習越多，白質變化就越大。



泛科學
PanSci.tw

- [關於泛科學]
PanSci 泛科學成立於2010年底，初始為台灣數位文化協會的非營利網路媒體計劃。現為台灣最受歡迎的科學知識社群網站。泛科學集結科學作者、學術界、研究機構、媒體單位等共同發聲。暢談科學、將高深龐雜的科學發展重新放置回台灣公共論壇中，並且用理性思考社會議題中的科學面向。
- 基因改造作物是糧食問題的未來？…許許多多的公共議題都跟科學有關，但由於知識門檻與媒體失焦，科學卻漸漸變得與公民無關，成為少數「專家」們的評斷。
- 我們認為科學應該面向大眾，要能解決大眾的問題，也要讓解決問題本身變成樂趣。

『小強！你怎麼了小強』之 別鬧了，你殺不死我的(適應力篇)

<https://www.youtube.com/watch?v=o1snb2DA9Ao#t=111.26475>

【TED-Ed】蟲蟲危機從何而來？(Why are there so many insects?) <https://tw.voicetube.com/videos/35769?ref=teded>

to thrive

- ▶ in a range of environments across the planet.
- ▶ Even some of the most extreme environments are in bounds;
- ▶ Flat bark beetles can live at -40 degrees Fahrenheit,
- ▶ Sahara Desert ants can venture out
- ▶ when surface temperatures exceed 155 degrees,
- ▶ and some bumblebees can survive 18,000 feet above sea level.
- ▶ Insect exoskeletons also work like body armor,
- ▶ protecting insects against the outside world

單字 筆記 佳句 搜尋單字

點擊即可立刻查字典，但你目前還沒有查詢過單字呢！

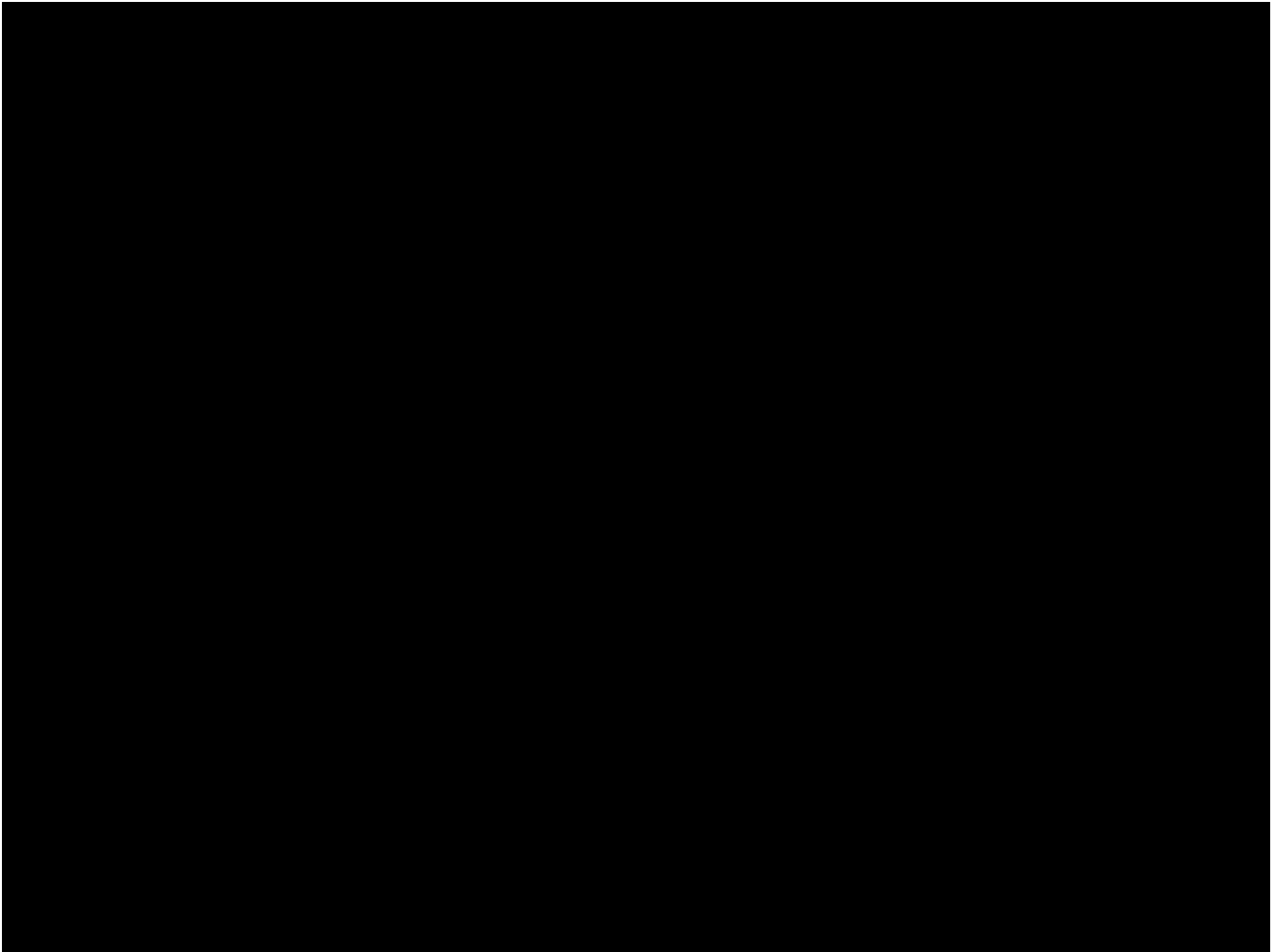
0:00 / 4:43

Sahara Desert ants can venture out
撒哈拉沙漠蟻仍能外出活動

重複單句 中英 全螢幕 影片重複 嵌入分享 速度：慢 一般

Why should we learn English by listening and speaking first, then later reading and writing?

熟悉句型 by 聽說讀寫



Hugh Grant & Haley Bennett - A Way Back Into Love 情歌情人



speaking

VoiceTube^{TW} 精選頻道 ▾ 程度分級 ▾ 聽力口說 ▾ 社群 ▾ 匯入影片 HERO 課程 **NEW**

聽力 100% 口說

初級 2948 讚 分享 4 已收 分類

選擇標記字庫 回報字幕錯誤 **ON**



A Way Back Into Love
music and lyrics

0:00 / 4:34

病症：英文讀寫還可以，但聽說總是卡卡的？
病友：HERO 矯正聽力障礙，克服口說障礙！