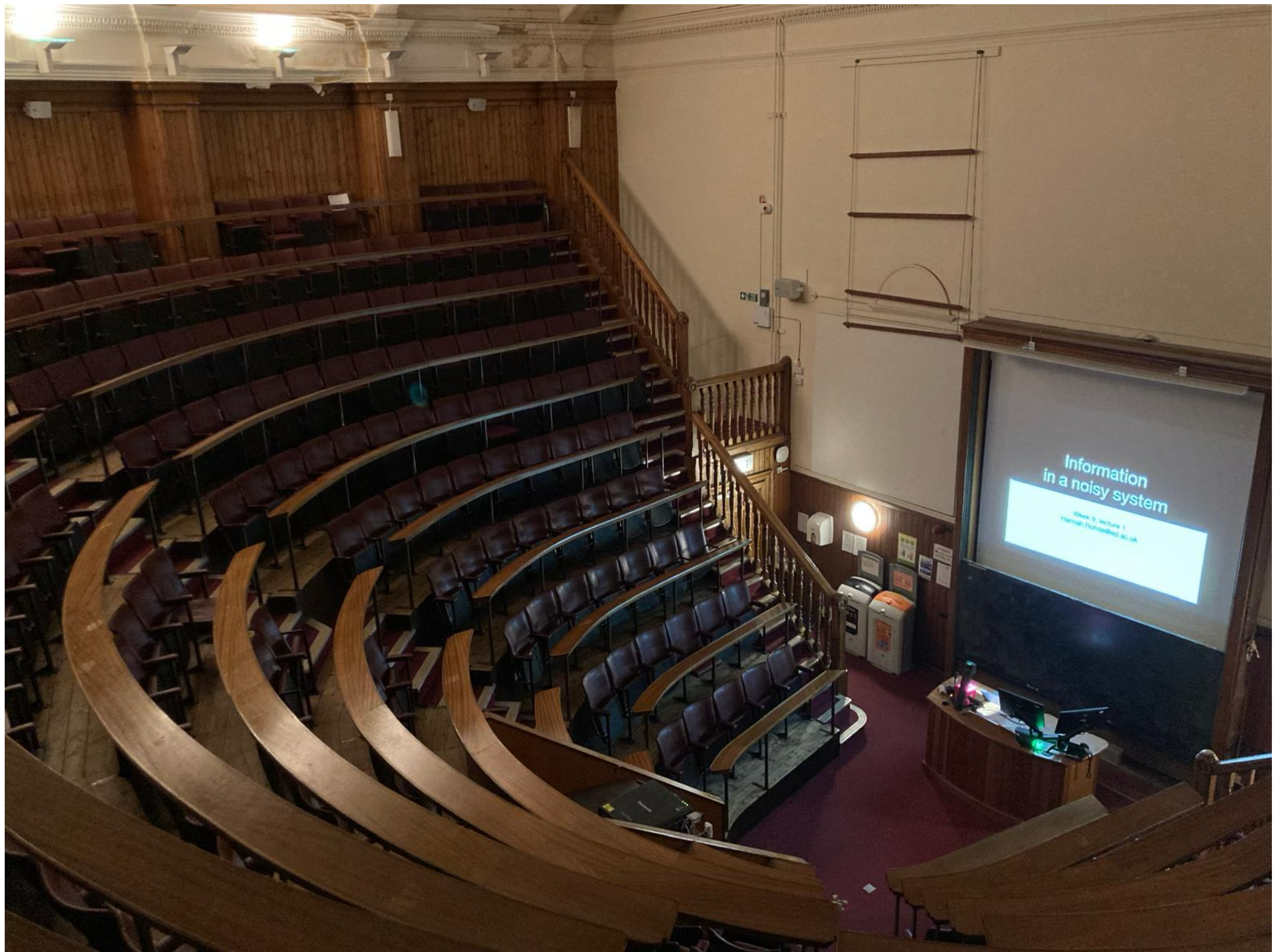# Cognitive Science in Edinburgh

Hannah Rohde, Linguist & Teaching Director of UG Cognitive Science degree

Anatomy Lecture Theatre,
Edinburgh Medical School

CogSci in Edinburgh

- **My message to students:**
  - This is the degree I wish I'd done
  - Flexibility/Interdisciplinarity

- **Upsides:** Study amazing content, benefit from huge freedom, small cohort (~20 per year)

  [For me: excellent motivated curious students]

- **Downsides:** No home department, risk of slipping between the cracks, need more hours in the day

  [For me: reliant on goodwill of 4 departments]

> **How to balance breadth and cohesion?**
>   **... Access to Phil/Psych/Ling/Informatics courses**
>   **... Study space in "/"/"/" buildings**
>   **... But how to maintain sense of a cohort**

Undergrad degrees in Scotland

- ▶ High school students apply directly to a degree

- ▶ University students have some outside courses in years1&2, degree-only in years3&4

How do students find out about CogSci?

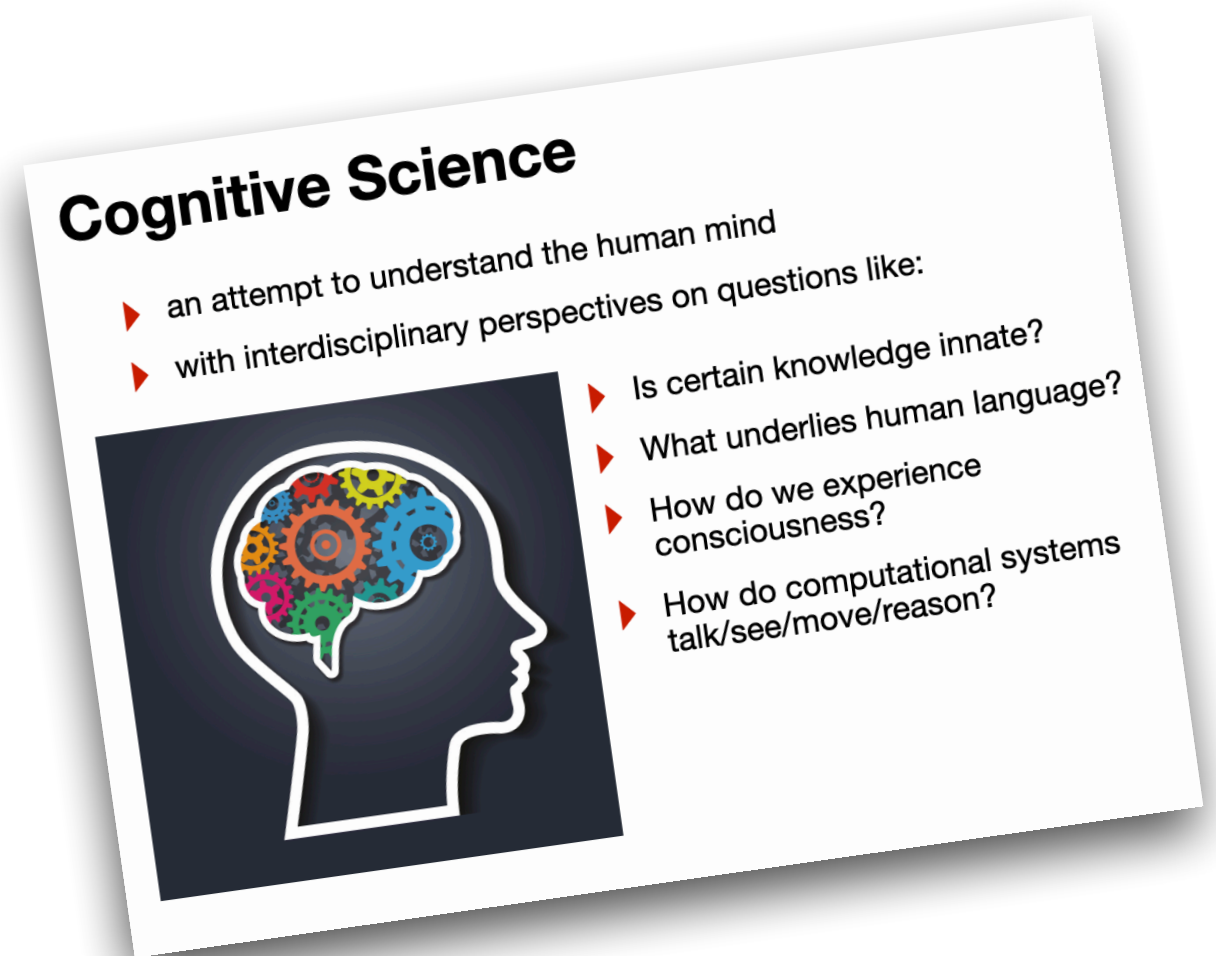I've always been interested in the human mind

I saw a video on the university website

There was this video on youtube about AI

It was an accident; I meant to click Computer Science

How to recruit students?

- Open Days (October, June)

- Post-offer visiting day

- Getting the word out:

    - Psychology applicants (contact students directly)

    - IntroCogSci students from other degrees
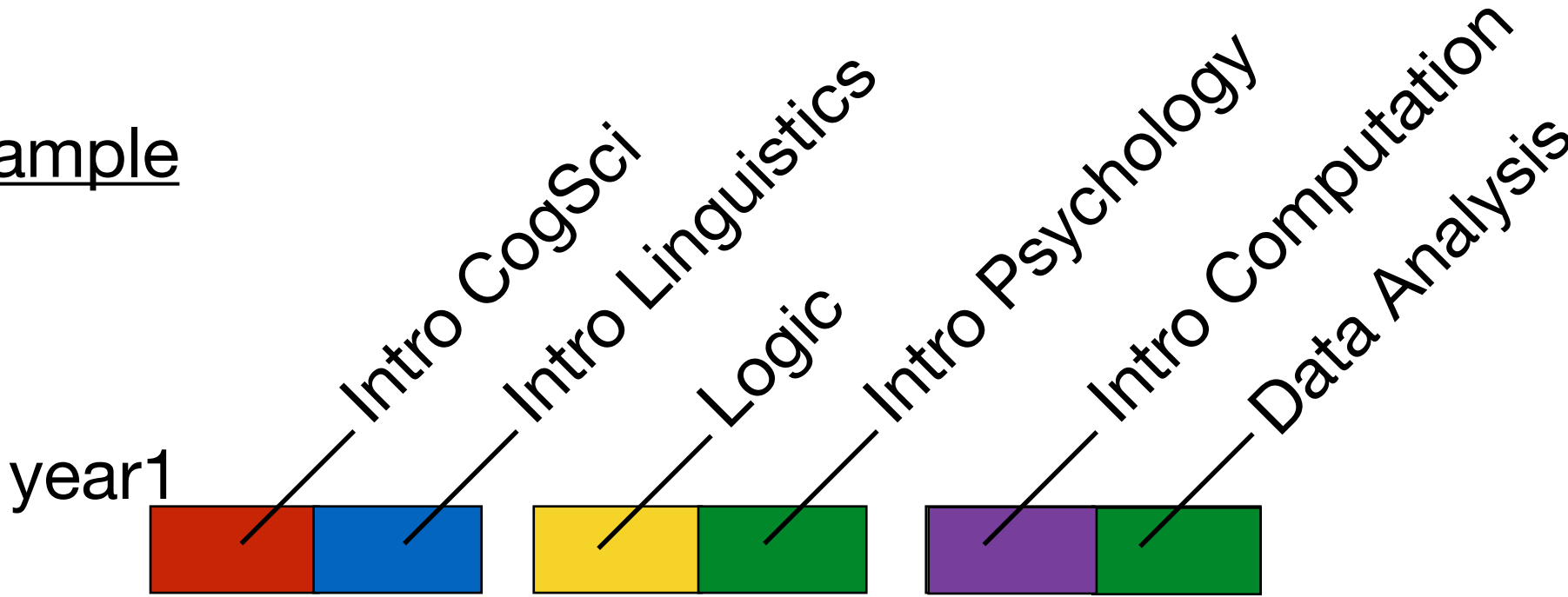   (adjust degree requirements to allow transfers)

1st year course: *Intro Cog Sci*

"a philosopher, a psychologist & a linguist walked into…"

▶ Co-taught course introducing:

  ▶ Nativism & empiricism

  ▶ Modularity & representation

  ▶ Consciousness & embodiment

  ▶ Information & inference

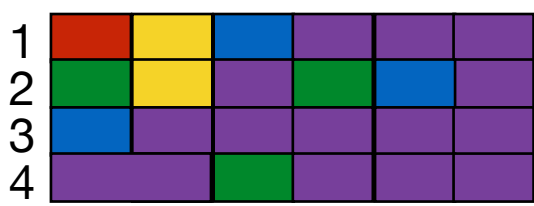 ▶ Language evolution, variation, & learning

Degree pathways
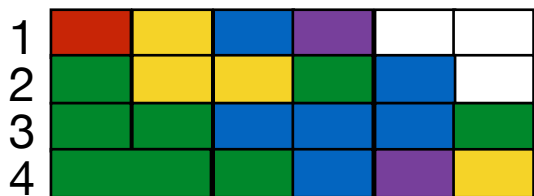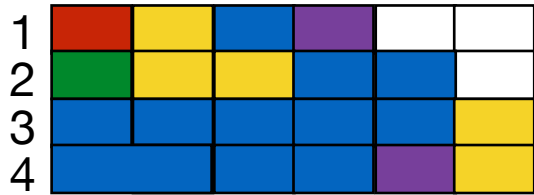
What ties it all together?

▶ Memorable courses

    ▶ *Puzzles and Paradoxes*

    ▶ *Mind, World, and Language*

    ▶ *Me, Myself, and Other (Less Important) Subjects*

    ▶ *Computational Cognitive Science*

    ▶ *...*

▶ Dissertation

    ▶ *Perceptual & Semantic Similarity in False Memory*

    ▶ *Using Tongue-Twisters to Understand Inner Speech*

    ▶ *Evolutionary Psychology & Problems of Modularity*

    ▶ *Emergence of Compositionality with Neural Networks*

    ▶ *...*

▶ Student CogSci society

▶ Annual CogSciCon event

Final-year capstone course?

... what would it cover?

... is freedom/depth better?

Computation in Cognitive Science

▶ Cognitive modelling, machine learning & applications, practicalities of data collection, etc.

▶ Logical mindset for breaking down ideas

Teaching?
  ... How to link intro programming to high-level CogSci topics?
  ... How to assess programming skills?
  ... Techniques for programming are changing
  ... Focus on computational/algorithmic/implementation levels
  ... Focus on methods (e.g., virtual reality), topics (e.g., social robotics), and new frontiers in information

Thanks!