

Today's topics:

- **Introduction to the course**
- **Should we have confidence in science?**
- **Audience and communication**

0. Today's objectives

After today's class, you should be able to:

- Describe the goals, structure, and requirements of this course
 - And know where to go to find the details
- Explain factors that increase confidence in the results of scientific research
- Identify some ways that audiences can differ
 - And begin thinking about how to communicate with different audiences

1. Introduction to the course

Welcome!

- I am **Jen Smith** [[my web site](#)]
 - Please call me Jen or Dr. Smith or Prof. Smith (“Ms. Smith” is not my professional title)

1. Introduction to the course

- In this course, you will:
 - Critically examine some **widely held beliefs** about language and languages

1. Introduction to the course

- In this course, you will:
 - Critically examine some **widely held beliefs** about language and languages
 - Develop skills as an **informed consumer** of scientific research results

1. Introduction to the course

- In this course, you will:
 - Critically examine some **widely held beliefs** about language and languages
 - Develop skills as an **informed consumer** of scientific research results
 - Practice **communication techniques** for different kinds of audiences

1. Introduction to the course

- In this course, you will:
 - Critically examine some **widely held beliefs** about language and languages
 - Develop skills as an **informed consumer** of scientific research results
 - Practice **communication techniques** for different kinds of audiences
 - Become familiar with fundamental topics and methods in **experiment-based linguistics**, and in cognitive science more generally

1. Introduction to the course

This course has **no prerequisite**, but it counts toward the LING **major/minor**

- Some of you are new to linguistics
 - We will talk about key ideas so that everyone has enough background to understand the issues

1. Introduction to the course

This course has **no prerequisite**, but it counts toward the LING **major/minor**

- Some of you are new to linguistics
 - We will talk about key ideas so that everyone has enough background to understand the issues
- Some of you are already familiar with linguistics
 - We may explore topics that you have seen in a course before
 - Focus on: What actual *research results* support the ideas you may already be familiar with?

1. Introduction to the course

- [Course web site](#)
- [“Daily syllabus”](#) web page
- [Course Information and Policies](#) (syllabus)
 - Save this and/or print it — keep it handy
- Preparation questions on Canvas

*Remember to REFRESH your web browser
to get the latest version of a web page*

2. Should we have confidence in science?

Group discussion

Please introduce yourselves in your groups!

- Should we have confidence in science?
 - Reasons for **yes**?
Strengths of science?
 - Reasons for **no**?
Concerns about science?

2. Should we have confidence in science?

- [Naomi Oreskes](#) from TED Radio Hour, “The Spirit of Inquiry” (broadcast in 2017)
 - Click on ► in blue box for **radio broadcast** (video link is Oreskes’s full TED talk)
 - Listen from 0:32 to 4:50
- **Check-in:**

What factor does Oreskes identify as the most important aspect of building confidence in a scientific finding?

2. Should we have confidence in science?

- Science has some fundamental **safeguards**:
Consensus in the scientific community
 - What are some **ways** in which the scientific community reaches consensus about results?
 - How is the validity of a **single research paper** assessed?
 - How is the validity of a **new scientific claim** assessed?

2. Should we have confidence in science?

- Science has some fundamental **safeguards**:
Consensus in the scientific community
 - Peer review
 - Community standards for evidence
 - Replication
- Are these safeguards foolproof? *No.*
 - What can we **evaluate** when considering scientific research results?

2. Should we have confidence in science?

- What can we **evaluate** when considering scientific research results?

Peer review	
Standards for evidence	
Replication	

2. Should we have confidence in science?

- What can we **evaluate** when considering scientific research results?

Peer review	Where is the research published? How rigorous is the peer review?
Standards for evidence	Does the evidence as presented follow standards of good practice? • Statistics can help here
Replication	How many studies have produced results that are consistent?

3. Audience and communication

Group discussion

- Who was Oreskes's **audience** in the audio clip?
 - What kind of **knowledge** of science can she assume that this audience has?
 - What did she do to **engage** this audience?

3. Audience and communication

Group discussion

- What are some contexts where the audience would have **more** or **less** knowledge of science?
 - What might a speaker do **differently** to engage these other audiences?

3. Audience and communication

Some ways that audiences can differ

- Level of **expertise**
 - inexpert
 - informed
 - expert
- Level of **alignment**
 - resistant
 - ambivalent
 - supportive
- What might happen if you make the wrong guess?

3. Audience and communication

- Orestes recognizes the importance of good communication for science
 - Listen from 12:27 to 12:44

4. For next time

- On Wednesday, we will talk about
 - Kaplan (2016), Ch 1
 - Some fundamentals of language and linguistics
- What should you do to be prepared for class?
 - Check the “[Daily Syllabus](#)” page to see!