ES2660 CRITICAL THINKING AND COMMUNICATION FOR THE INFORMATION AGE

T4: ONCE UPON A TIME…

TO DO, TODAY

- Retelling tales

- A closer look at assumptions – why they are significant and when they can be stumbling blocks

- Critical thinking taxa and how we evaluate information

RECAP – JACK & BEANSTALK

Mental Tools	Illustrated by
Assumptions	Jack is the hero. Mothers are not always right. Sons look after mothers. Giants are bad. It's ok to kill baddies. It's ok for heroes to live happily ever after. Older people (mother, bean seller) and supernatural beings are credible (fairy). Cheerful music = something positive. Fairy tales are ok for children.
Claims	Bean seller claims the beans are magic. Fairy claims that Jack is the true heir of the castle. Fairy claims that it is not stealing from the giant, to steal the hen and the harp, because Jack cannot steal from himself.
Credibility	Jack believes the bean seller. Jack believes the fairy. But what are his reasons for believing them?
Interpretation	Version #2 is a "sanitized" version because Jack is exonerated of murder, whereas in version #1 he is justified in taking back his family's property.
Opinions	Jack has an opinion about the beans. You have an opinion about this story and the two versions of it.
Values	Wealth and happiness go together, wealth is more deserved by the poor, the wealth of giants and other baddies is meant to be redistributed, being different showing initiative, being adventurous are good traits.
Viewpoints	Jack's viewpoint of who is the owner of the hen that lays gold eggs and the singing harp is different from the giant. Your viewpoint of Jack may differ if you have a different world view or cultural values.
Worldviews	Do you share the world view that Jack shows an admirable adventurousness, is enterprising/shows initiative, is courageous in taking on the giant? Or do you think he is a lazy and disobedient boy? A thief and a murderer? Do you think it is wrong to kill giants just because they are giants or is there some underlying racism?

WATCH AND RECORD

| Mental Tools	Illustrated by …….in Team _____ Retelling of the story of
Assumptions	
Claims	
Credibility	
Interpretation	
Opinions	
Values	
Viewpoints	
Worldviews	

ASSUMPTIONS AND DECONSTRUCTING ARGUMENTS

ASSUMPTIONS – CULTURAL SHORTCUTS OR BAGGAGE?

- Besides assumptions about knowing what certain words and phrases mean, there are other assumptions that might be used in arguments.

- What is the difference between

  a valid assumption   can be **fairly** & safely used to convey meaning quickly, without further elaboration

  an invalid assumption   is **unfairly** used and may distort understanding or lead to misunderstanding of one's point

- How is this relevant to you in your work for other modules or discipline, in terms of how you write or speak?
  e.g, End user manual writing, presentation of algorithms to non technical readers? Understanding client's fears about using AI?

UNMASKING ASSUMPTIONS – CULTURAL VALUES

- Surface and deep-seated assumptions

- Thought processes are deep culture

- Explain how this diagram works
- Why are thought processes deep culture?
- Give some examples

Surface Culture

behaviours
words
customs
traditions

beliefs
values
assumptions
thought processes

Deep Culture
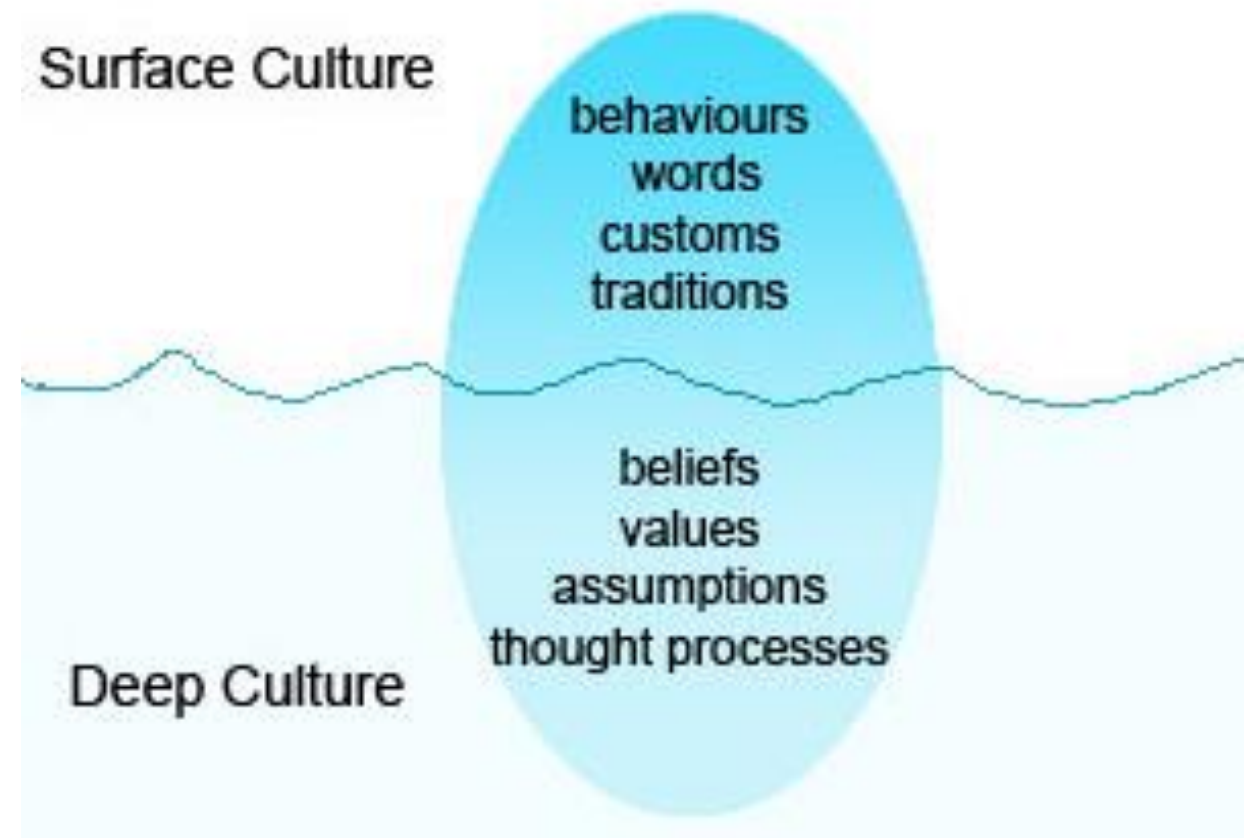
CULTURE AND LANGUAGE

- Idiomatic expressions and discourse markers affect meaning.

- People who share the same cultural conventions understand what assumptions are being made.

- These cultural conventions also apply to written and spoken academic culture in English, e.g. in positing claims, introducing evidence, developing a line of reasoning.

- A critical reader or listener has to be alert to these language clues; e.g. Which of these two claims is more truthful?

  - Indian and Chinese expatriates have been discriminated against by local landlords in Singapore's rental market.

  - There have been a number of reported incidents of expatriate Indian and Chinese nationals who have faced discrimination in finding mid range rental accommodation in Singapore due to perceived racial discrimination on the part of local landlords.

- **What conventions governing academic culture and language are illustrated in the sentences above?**

UNMASKING INVALID ASSUMPTIONS

- Invalid assumptions are those which have been wrongly identified as being commonly understood OR wrongly assumed to be correct.

- Invalid assumptions may be so not just because of culture, but also logic.

- They fall into certain patterns, known as fallacies.

UNMASKING ASSUMPTIONS – FALLACIES – MORE MENTAL TOOLS

- **Appeal to authority**
  if falsely used, e.g. when the authority does not have jurisdiction over a particular area
- **Appeals to emotion**
  Shame, love, human nature e.g. spite, human condition e.g. pity
- **Bandwagon**
  Everyone believes in it or is doing something
- **Doublespeak and weasel words** - words that are designed to change attitudes
- **Inference**
  A meaning that can be made by reading between the lines

UNMASKING FALLACIES – EXTRA, EXTRA

- This YouTube video explains a few more fallacies
http://www.youtube.com/watch?v=AiUrSFAIktY&list=PLA121EF8990EA9C48
In your teams, note the terms and the definitions used in this short video animation.

- Here is the other half of the video which illustrates more logical fallacies
https://www.youtube.com/watch?v=WmIb2Jb-KC8

- Ready to test yourself? Try this:
https://www.youtube.com/watch?v=6z31tXadSdA&index=9&list=PLiKt0JmOanUjrV16Ok2DZTUidx9t2mdo_

UNMASKING FALLACIES – EXTRA

Find this in Course materials > Extras

20 COGNITIVE BIASES THAT SCREW UP YOUR DECISIONS

1. Anchoring bias.
People are **over-reliant** on the first piece of information they hear. In a salary negotiation, whoever makes the first offer establishes a range of reasonable possibilities in each person's mind.

2. Availability heuristic.
People **overestimate the importance** of information that is available to them. A person might argue that smoking is not unhealthy because they know someone who lived to 100 and smoked three packs a day.

3. Bandwagon effect.
The probability of one person adopting a belief increases based on the number of people who hold that belief. This is a powerful form of **groupthink** and is reason why meetings are often unproductive.

4. Blind-spot bias.
Failing to recognize your own cognitive biases is a bias in itself. People notice cognitive and motivational biases much more in others than in themselves.

5. Choice-supportive bias.
When you choose something, you tend to feel positive about it, even if that **choice has flaws**. Like how you think your dog is awesome — even if it bites people every once in a while.

6. Clustering illusion.
This is the tendency to **see patterns in random events**. It is key to various gambling fallacies, like the idea that red is more or less likely to turn up on a roulette table after a string of reds.

7. Confirmation bias.
We tend to listen only to information that confirms our **preconceptions** — one of the many reasons it's so hard to have an intelligent conversation about climate change.

8. Conservatism bias.
Where people favor prior evidence over new evidence or information that has emerged. People were **slow to accept** that the Earth was round because they maintained their earlier understanding that the planet was flat.

9. Information bias.
The tendency to **seek information when it does not affect action**. More information is not always better. With less information, people can often make more accurate predictions.

10. Ostrich effect.
The decision to **ignore dangerous or negative information** by "burying" one's head in the sand, like an ostrich. Research suggests that investors check the value of their holdings significantly less often during bad markets.

11. Outcome bias.
Judging a decision based on the **outcome** — rather than how exactly the decision was made in the moment. Just because you won a lot in Vegas doesn't mean gambling your money was a smart decision.

12. Overconfidence.
Some of us are **too confident about our abilities**, and this causes us to take greater risks in our daily lives. Experts are more prone to this bias than laypeople, since they are more convinced that they are right.

13. Placebo effect.
When **simply believing** that something will have a certain effect on you causes it to have that effect. In medicine, people given fake pills often experience the same physiological effects as people given the real thing.

14. Pro-innovation bias.
When a proponent of an innovation tends to **overvalue its usefulness** and undervalue its limitations. Sound familiar, Silicon Valley?

15. Recency.
The tendency to weigh the **latest information** more heavily than older data. Investors often think the market will always look the way it looks today and make unwise decisions.

16. Salience.
Our tendency to focus on the **most easily recognizable features** of a person or concept. When you think about dying, you might worry about being mauled by a lion, as opposed to what is statistically more likely, like dying in a car accident.

17. Selective perception.
Allowing our expectations to **influence how we perceive** the world. An experiment involving a football game between students from two universities showed that one team saw the opposing team commit more infractions.

18. Stereotyping.
Expecting a group or person to have certain qualities without having real information about the person. It allows us to quickly identify strangers as friends or enemies, but people tend to **overuse and abuse** it.

19. Survivorship bias.
An error that comes from focusing only on surviving examples, causing us to **misjudge a situation**. For instance, we might think that being an entrepreneur is easy because we haven't heard of all those who failed.

20. Zero-risk bias.
Sociologists have found that **we love certainty** — even if it's counterproductive. Eliminating risk entirely means there is no chance of harm being caused.

ENNIS – REVIEW – WHAT DOES ENNIS SAY ABOUT…

- Information and knowledge?
- Identifying component parts of an argument such as conclusions, reasons, and assumptions?
- Defining key words in an argument?
- Drawing conclusions?
- Judging source credibility?
- Asking questions?
- Judging the quality of an argument?
- Having a clear stand on an issue or topic?
- Forming a hypothesis and proving it?

GROUP PROJECT – CA 2

Task description

- The aim of this project is to develop a way of processing information, henceforth referred to as '**rubric**' and to demonstrate that it works by **applying it to two sources of information**. The first source will be your pilot test that you will write up in the critical reflection and the second test is on the prompt* that we will send you 72 hours before you are to demonstrate (orally) in class how your rubric works.

- You should also be able to persuade us that your rubric is effective because it is **easy to remember and use**. This will be an opportunity for you to show creativity and imagination, e.g. telling us about how your rubric works in a story is one way of capturing our attention.

GROUP PROJECT – CA 2

Communication Learning Objective:

By the end of the course, you should be able to (a) develop and use a framework to ask questions which mine for meaning, and (b) consistently and conscientiously use a critical thinking rubric designed by yourselves, based on your understanding of Ennis' Taxonomy of critical thinking skills and dispositions to evaluate any given argumentative text – written, spoken or graphic.

Specific aims of the task:

- Express your understanding of Ennis Taxonomy of critical thinking in the form of a critical reflection.

- Develop a rubric that is based on Ennis Taxonomy and apply it to a source of information of your choice.

- Show, in an oral presentation, how your rubric works when applied to another given information source.

GROUP PROJECT – CA 2

Details of assessment – 2 components

(a) Critical reflection (written) – maximum 5 pages (15%, group mark)

- Each member should have read and reflected on Ennis, 2011.

- You need to identify the key taxa of his taxonomy of critical thinking skills and dispositions.

- You should also analyse how these taxa can be applied to evaluate information, either as a single or in more complex forms

- In particular, you should be able to show a degree of deep learning by formulating and applying a rubric to show the taxa most useful for evaluating different forms and sources of information as used by you in the information age, e.g. website or online news.

GROUP PROJECT – CA 2

(b) Oral presentation – 3-5 minutes but 4 minutes is ideal, per person (10%, individual mark)

- The team will be given a prompt* 72 hours in advance.

- Team members should discuss how their rubric can be used to assess and evaluate information in the specified source.

- The resultant discussion points should then be divided among the team members.

- Each team member will present a section.

- At the end of all the short presentations, the team will take questions from the rest of the class who have been their audience.

E.G.

Week 5 – Conferencing with tutor for the Group Project

Come as a group, only for your team's slot	
T1 Tuesday	T2 Friday
0800-0850: Team A	0800-0850: Team C
0850-0940: Team B	0850-0940: Team D

RECAP - UNMASK THE ASSUMPTIONS HERE

For next lesson, speak for just a minute on the *underlying* **assumptions** in this song.

You can also question these assumptions.

"Something just like this"
by Cold Play and Chain-smokers

https://www.youtube.com/watch?v=FM7MFYoylVs