

WEEK 4 ENGLISH ARGUMENTS

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WEEKLY SUMMARY

- Writing workshop
- Finish lit reviews
- Arguments
 - Expressing arguments in introduction/lit review
 - Thesis statements
- Brainstorming: free writing
- Objective prose
- English writing style
- Writing workshop

First Issue: Makeup class?

- Do you want to have a makeup class?
- If so when is a good time?
- Wednesday morning?
- Monday morning?

IF YES: What kind of makeup?

- Review?
- New content?
- Zoom?
- In the classroom?

NOTE

Please sit with people from your track today

ACADEMIC CONNECTORS (sentence adverbs)

- Connectors are pieces of language at beginning of sentence that allow for logical transitions between sentences or ideas
- They have a range of functions
 - Causal = show relationships
 - Transition = move from one idea
 - Repudiate/Challenge an idea

(<http://sana.aalto.fi/awe/cohesion/signposts/contrast/index.html>)

NOTE

- You should use a diverse range of connectors
- Do NOT keep using the same ones over and over

CONTRASTIVE CONNECTORS

| Sentence connectors (Between-sentence) | Conjunctions (Within-sentence) | Subordinators (Phrase linkers) | Prepositions |
|---|-----------------------------------|---|--|
| However,... Nevertheless,... Nonetheless,... On the other hand,... In contrast,... Conversely,... On the contrary,... Alternatively,... Instead,... | but yet nor albeit | Although..., ... (even) though..., ... While..., ... Whereas..., ... | In contrast to + noun , ... Contrary to..., ... Unlike..., ... Despite..., ... In spite of..., ... Notwithstanding..., ... Instead of..., ... |

Do not begin sentences with BUT, AND, BECAUSE, or SO (and some others).
 These are not 'academic'!!!

But you will see people using these anyway. Still, I suggest you NOT use them

Linking and transition words and PDF

[Linking/transition words - Academic writing - Library at Staffordshire University \(staffs.ac.uk\)](#)

Academic connectors PDF from Rosario English Area

PDF view in class

ACTIVITY

- Use one of the articles that you analyzed last time
- Find all the connectors in them and make a list of them
- Which ones are used the most?
- Are they used correctly or effectively?
 - [Remember: Many native English speakers are bad at writing in English]
- Are they repeated?*
- [English tip AGAIN: you do not want to repeat the same connector, phrase or word too many times]

Writing workshop

TOPIC: Impressions of Naju and KENTECH so far. Talk about each one respectively and your feelings.

Be sure to use a diverse range of CONNECTORS to show your transitions/flow.

Reading from Writing Workshop

Read your responses to your groupmates.

Listen for:

1. Does the reader/writer demonstrate good use of connectors?
2. Does the reader/writer use connectors that are appropriate, easy to understand, and aid their writing?

Concluding Lit Reviews

LITERATURE REVIEW CONCLUSIONS

- With the people in your track, compare the articles that you brought to class
- Comparing the TWO articles, try to make GENERALIZATIONS about literature reviews from these two
- Can you generalize them?
- Or are they too different?
- How are they similar or different?

We will discuss together

Closer Look at Arguments

ARGUMENTS IN ENGLISH

- “In academic writing, an argument is usually a main idea, often called a “claim” or “thesis statement,” backed up with evidence that supports the idea.” (UNC Writing Center)
- An argument is a CLAIM or POSITION that you make about a particular topic based on evidence
- When writing academic papers, this is often the most important part of paper
- QUESTION: Where is the best place to put an argument in your paper?

ANSWER

- In the THESIS STATEMENT

What is the difference between a thesis statement and argument?

- Discuss together

THESIS STATEMENT vs ARGUMENTS

- One is for writing purposes
- The other is a general points of a particular paper, speech, etc.
- This is a more of a conceptual difference

GOOD VS. BAD ARGUMENTS

- Bad argument: We need more investment in solar energy technologies.
 - Good argument: Researchers need to dedicate more attention to solar energy because, based on a survey of twenty-first century energy technologies, solar energy provides the most cost-effective and cleanest way to generate energy.
-
- Bad: Semiconductors are the most important area of research today.
 - Good: Due to our country's heavy reliance on semiconductors, the growing competitiveness of obtaining semiconductors developed abroad, and the expected shortage of semiconductors in the coming years, the government should dedicate more funds to developing semiconductors domestically.

NOTE

- Academic arguments are often complex
 - You will seldom have an argument that is as simple as “Semiconductors can be an important aspect for our country’s development in the future”
- **They often rely on implications or findings from previous research or theories**
- **They are often made using new methods, experiments, or data**
- Academic arguments often that the whole paper or sections to make these arguments

Arguments in detail

- This week we will look at more detailed arguments
- How are THESIS STATEMENTS supported through evidence
- What types of evidence can be used to make your argument
- [This is a review of a lot of the previous stuff that we have discussed]

ARGUMENTS IN SCIENCE PAPERS

- These are basically **what we should take away from your paper**
- *Now that we read your paper, so what?*
- *What is the implication?*
- In practice, arguments should be based on:
 - Novel results
 - Reinforce old results/findings
 - Call attention to a new phenomenon or process
 - Argue for a new approach or theoretical perspective (based on some empirical findings)
- In most cases, you can read the abstract, introduction, and/or conclusion and understand the main argument

Discuss: Where is the argument here? (Jeong et al. 2021)

Metal halide perovskites of the general formula ABX_3 —where A is a monovalent cation such as caesium, methylammonium or formamidinium; B is divalent lead, tin or germanium; and X is a halide anion—have shown great potential as light harvesters for thin-film photovoltaics^{1,2,3,4,5}. Among a large number of compositions investigated, the cubic α -phase of formamidinium lead triiodide (FAPbI₃) has emerged as the most promising semiconductor for highly efficient and stable perovskite solar cells^{6,7,8,9}, and maximizing the performance of this material in such devices is of vital importance for the perovskite research community. Here we introduce an anion engineering concept that uses the pseudo-halide anion formate ($HCOO^-$) to suppress anion-vacancy defects that are present at grain boundaries and at the surface of the perovskite films and to augment the crystallinity of the films. The resulting solar cell devices attain a power conversion efficiency of 25.6 per cent (certified 25.2 per cent), have long-term operational stability (450 hours) and show intense electroluminescence with external quantum efficiencies of more than 10 per cent. Our findings provide a direct route to eliminate the most abundant and deleterious lattice defects present in metal halide perovskites, providing a facile access to solution-processable films with improved optoelectronic performance.

Discuss: Where is the argument here? (Jeong et al. 2021)

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Chen, Kim, and Yamaguchi

4. Conclusions and policy implications

Based on the findings, joint development could have positive outcomes for the expansion of renewable energy in all three countries. Although the three countries may compete with each other for a greater global renewable market share, opportunities exist to increase collaboration among these countries.

A B S T R A C T

Japan, South Korea, and Taiwan are deficient of domestic fossil energy sources and depend significantly on imported fuels. Since the oil shock in the 1970s, all three countries have promoted renewable energy as an alternative energy source to improve energy security. Currently, renewable energy is being promoted to build low-carbon economies. This study reviews the development of renewable energy policies and roadmaps. It also examines and compares strengths, weaknesses, opportunities, and threats (SWOT) of these countries in the context of advancing renewable energy policies and technologies and expanding domestic renewable energy installations, as well as strategically positioning themselves in the international renewable energy market as exporters of clean energy technologies. Through the SWOT analysis, this paper identifies a capacity for additional renewable energy deployment in these countries and highlights the necessity of increased cooperation between the three countries to strengthen their domestic and regional renewable energy sectors and compete in the global renewable energy market in the post-Fukushima era.

Is this a good argument?

- Yes, we kind of see what they are arguing for (i.e. there are opportunities to found in renewable energy in these three countries)
- Yes, because we can see what they did to arrive at their argument in the sentences before it (i.e. SWOT analysis)
- No, because it can be clearer (i.e. What are these opportunities? And what specifically will they do when they are achieved? This information is missing besides the fact that renewable energy is somewhat desirable?)

Angelidou

ABSTRACT

This paper identifies the characteristics of smart cities as they emerge from the recent literature. It then examines whether and in what way these characteristics are present in the smart city plans of 15 cities: Amsterdam, Barcelona, London, PlanIT Valley, Stockholm, Cyberjaya, Singapore, King Abdullah Economic City, Masdar, Skolkovo, Songdo, Chicago, New York, Rio de Janeiro, and Konza. The results are presented with respect to each smart city characteristic. As expected, most strategies emphasize the role of information and communication technologies in improving the functionality of urban systems and advancing knowledge transfer and innovation networks. However, this research yields other interesting findings that may not yet have been documented across multiple case studies; for example, most smart city strategies fail to incorporate bottom-up approaches, are poorly adapted to accommodate the local needs of their area, and consider issues of privacy and security inadequately.

KEY

Smart
governance
development

Good or bad?

- Better than Chen, Kim, and Yamaguchi
- Good: Argument and stance is clear (new information concerning smart city failures)
- Good: We see how they fail (fail to incorporate bottom-up approaches, poorly adapted to accommodate local needs, failure to consider privacy and security)
- Good: We can see how this conclusion was reached (i.e. case studies of 15 smart cities)

ARGUMENTS NEED EVIDENCE

- Arguments in science and engineering should NOT be based on feelings/emotion or vague theories (like literature or humanities)
- Arguments in science and engineering must be based on facts or evidence
- This evidence can be:
 - Observations
 - Previous research studies (arguments based on others' data or research)
 - Original research
 - Case studies
 - Lab experiments
 - Field experiments
 - Application of new theories to old information and data
 - Application of old theories to new methods/information

SENTENCE STRUCTURES FOR ENGLISH ARGUMENTS

- “Our findings suggest that...”
 - “Based on our observations, we determined that...”
 - “These results indicated that ...”
 - “The results showed that... However, ...”
 - “In this paper, we analyzed ... We demonstrated that ... “
 - “This article suggests that...”
-
- You can find similar structures in articles in your field
 - Identify them and use them to sound more expert in your area

Example

- This article examines...
- Specifically, it highlights...
- ...considers data from...
- In constructing....
- This article suggests....

ABSTRACT

This article examines the different ways Africans present themselves in Japan and considers what these differences explain about the function of ethno-racial categories and discourses in the Japanese context. Specifically, it highlights the importance of cultural factors in shaping the ways Japanese discourses conceptualize and engage categorical difference, as well as the limitations of examining difference in solely racial or ethnic terms. This article considers data from Africans who present themselves as being from places other than continental Africa and demonstrates how these presentations elucidate the dynamic cultural, geographic, socioeconomic, and contextual variables that inform how Japanese discourses construct cultural Otherness. In constructing such Otherness, Japanese discourses project domestic identity ideologies differently onto foreign populations, which simultaneously highlight the functionality of these ideologies. This article suggests that by constructing Otherness in such ways, Japanese discourses are able to reconceptualize notions of domestic Japanese identity in a renewed sense within a global framework.

ARGUMENTS

- These will always be specific to your paper and argument
- The sentence structures will help provide a framework, but they can be adapted in many ways
- You can use papers in your field as a model

Counter-arguments

COUNTER-ARGUMENTS

- Arguments that go AGAINST the argument you propose
- Past research and future research
- Should be supported and challenged with evidence (like arguments)
- You can think of them like OBJECTIONS to your argument

Simple examples

(Example 1)

- Argument: Solar energy will be the most important source of renewable energy in the twenty-first century.
- Counterargument: Nuclear will be more important.

(Example 2)

- Argument: Based on research using X methodology, we found that solar energy will be more cost effective than nuclear energy by 2030.
- Counterargument: Based on researching using Y methodology, we found that nuclear energy will actually be more cost effective by 2030.

WHEN AND WHERE TO USE COUNTER-ARGUMENTS

- In literature review when addressing research that opposes your own findings
- In the discussion when you need to explain how your research may be challenged by others in the future [remember the Baldwin formula]
- In abstracts, introductions, and conclusions to contextualize your own research and arguments to highlight the significance

HOW MUCH TO EXPLAIN WHEN PRESENTING COUNTER-ARGUMENTS?

- Depends on several factors:
- 1/ The significance of your own argument
 - Will it be challenged?
 - How will it be challenged? What is the impact of it?
- 2/ The journal you are writing to
- 3/ The nature of your argument/counter-argument
 - Can all counter-arguments be summarized in one paragraph easily? Or do you need more space?

RESPONDING TO COUNTER-ARGUMENTS

- Responding to counter-arguments or potential counter-arguments is important for making your research valid
- Be sure to include relevant responses to these counter-arguments
- Logical, structured, and evidenced based
- Include pertinent data necessary to challenge the points that were raised

Questions?

ACTIVITY

- With a partner or small group, identify an article from your field that has a clear argument in it.
- Does it present a counter-argument?
- In what form is the counter-argument?
- How does the author use a counter-argument to make their own argument stronger?

ACTIVITY [if time]

- Write a ONE paragraph argument about a controversial STEM topic
- Then write a ONE paragraph counterargument to your own argument
- Then write a ONE paragraph response to the counterargument

NOTE: Since this is really short, 3-4 sentences/paragraph is okay

NOTE 2: This does not have to be technical

Sharing

Compare your paragraphs with a partner/group

Does this match the structure we just discussed?

Does the arguments and counter arguments match accordingly?

Refer to the Nuclear-Solar PDF on the LMS

Consider the use of arguments and counterarguments through this short writing.

Where are the arguments and counterarguments?

Questions

Questions about arguments?

Objective Prose

OBJECTIVE PROSE

- Short discussion: What is the difference between objective and subjective prose?
- When would each be used?
- What are the BENEFITS of using each?
- What are the NEGATIVES of using each?

OBJECTIVE PROSE

- Science writing uses objective prose to establish validity and meaning
- Objective prose uses facts to support arguments, lacks emotion and sentiment
- Arguments are factually-based and clearly explained
- Should be empirically verifiable
- Objective prose should be value-free while subjective prose should be more emotional

Examples

Objective: “According to Department of Health statistics, lung cancer is the leading cause of preventable death in the United States, and the vast majority of lung cancer causes are linked to smoking tobacco.”

Subjective: “The greatest social health issue facing America today is lung cancer and smoking. The data shows this is the greatest cause of death in the United States and it is thus the biggest challenge we face today.”

Example: Which sentence is objective/subjective? Why?

Apple only allows apps that the company has approved to be installed on iOS devices. The company does not care about openness of their platform.

Right now the temperature is 40 degrees. This is great weather.

There are six different ways that scholars have theorized the relationship between computer science and ethical knowledge generation. Of these six ways, only two of them are important.

Yellow = subjective, blue = can be subjective

Apple only allows apps that the company has approved to be installed on iOS devices. **The company does not care about openness of their platform.**

Right now the temperature is 40 degrees. **This is great weather.**

There are six different ways that scholars have theorized the relationship between computer science and ethical knowledge generation. **Of these six ways, only two of them are important.**

Example: Degrees of objectivity: Which is **more** objective ?

“Smith’s (2009) paper made a major contribution to the field..”

“Smith (2009) made the greatest contribution to the field by...”

Example: Degrees of objectivity: Which is more objective ?

“Smith’s (2009) paper made a major contribution to the field...”

- This is more objective because we can verify it
- We can go to Google Scholar or other citation index and see

“Smith (2009) made the greatest contribution to the field by...”

- “Greatest” is highly subjective (in most cases) and can usually be debated

Objective or subjective? (from U Adelaide)

Indeed, there are countless values that are shared by our Australian community and which are extremely relevant to the life-threatening issue of compulsory childhood immunisation. Of course, the protection of the health and well-being of Australian kids must be a shared response. Obviously, they are such vulnerable creatures who cannot protect themselves and it is the full responsibility of the Australian community to stop endangering their fragile lives. Mandatory childhood immunisation policy is definitely consistent with the view we share as Australians, that is, our children's healthcare is a total priority. Clearly, if childhood immunity is not vigorously promoted across Australia, then all our children will contract ghastly vaccine-preventable diseases leading to death!! So, enforcing childhood immunisation programs TODAY is the only logical way for us to watch over the precious youth of our nation.

Subjective! Why?

- "...extremely relevant to the life-threatening issue..."
- "must be a shared responsibility."
- "Obviously, they are such vulnerable creatures..."
- "consistent with the views we share as Australians..."
- "...contract ghastly vaccine-preventable diseases leading to death!"

Others???

Objective or subjective?

There are a number of values that are shared by the Australian community and which are relevant to the issue of compulsory childhood immunisation. The protection of the health and well-being of Australian children should be a shared response (Australian Government, 2007). Children can be seen as potentially vulnerable individuals who do not have the capacity to protect and promote their own healthcare, and it is therefore the responsibility of the state and the Australian community at large to behave in ways that do not endanger their lives. It can be argued that a mandatory childhood immunisation policy would be consistent with the view shared by many Australians, that is, children's healthcare needs should be considered a priority (Anton et al., 2005, p.24). If childhood immunity is not promoted across Australia, then children may become at risk of contracting a variety of vaccine-preventable diseases leading to possible death (Gray & Davies, 2004, p.201). Enforcing timely childhood immunisation programs, therefore, would be highly beneficial for protecting the youth of this nation.

Objective!

- “There are a number of values...” [hedging, we learn about this later]
- “..should be a shared response (Aus. Govt. 2007)” [note the reference makes it more objective]
- “Potentially seen as vulnerably” [potentially, another hedge to add objectivity]
- “It can be argued that...” [third person rather than first here detaches the writer from the context]
- “If childhood vaccination is not...”
- “Enforcing timely vaccination programs would be...”

Others?

Active vs Passive Voice

Objective Prose: Active vs passive

When a sentence is in the active voice, **the subject of the sentence is the one doing the action expressed by the verb.** In the passive voice, **the subject is the person or thing acted on or affected by the verb's action.** The passive voice is typically formed with a form of the verb be—such as is, was, or has been—and the past participle of the verb, as in "The ball was thrown by Jerry." **Although sometimes criticized for being evasive, the passive voice can be useful when someone wants to emphasize an action that has taken place or when the agent of an action is unknown, as is often the case in news coverage.**

Active vs passive examples

Active: 'Paul opened the door'

Passive: 'The door was opened by Paul.'

Active: 'Scientists have found that this protein produces an adverse effect on metabolic processes.'

Passive: 'It has been discovered that this protein produces an adverse effect on metabolic processes.'

Good use of the passive

- There was a crime
- We don't know who committed it
- There is no problem leaving off the person who did the crime - because we don't know who it is

“The money was stolen at 11 PM last night.”

Problems with passive voice

- It obscured the subject of the sentence
- It makes it ambiguous who carried out an act
- It can lead to confusion by readers
- Some writers use this to intentionally obscure information and mislead readers
- THIS CAN BE A BIG PROBLEM, EVEN BIGGER IN SCIENCE WRITING!

When passive is problematic

'It is argued that South Korea actually started the Korean War.'

- Who argued this?
- Under what pretext?

Discussion

- Why might using passive here be problematic?
- Who might use it?
- Why?
- What are they doing to the reader by using passive voice here?

Compare

“It is argued that South Korea actually started the Korean War”

“Scholars have argued that South Korea actually started the Korean War.”

What is the difference here?

Now compare

“It is argued that South Korea actually started the Korean War”

“Scholars have argued that South Korea actually started the Korean War.”

“Bruce Cummings, the Marxist historian at the University of Chicago with strong North Korean sympathies, has argued that South Korea actually started the Korean War.”

- See the difference? See what passive voice can obscure.
- By using the passive, key information about the actor (Bruce Cummings) making the claim was obscured, preventing the reader from understanding the context
- Readers that are unfamiliar will be misled into thinking that ALL scholars might think this way - leading to confusion about who started the Korean War, something major.

Questions on objective prose?

Brainstorming

Brainstorming

- Short discussion: What does 'brainstorming' mean?
- Why might you use it?

Brainstorming explained

- Brainstorming is a technique that is used to develop ideas, organized ideas, or connect ideas
- It is a way to find new concepts or ideas
- There are many ways to do this activity and we will discuss these throughout the class

Brainstorming idea 1: Free writing

Does anyone know what free writing is?

Free writing

- An activity where you just keep writing without stopping
- Do not care about grammar, spelling, punctuation, or anything else
- The purpose is to just keep writing without stopping
- You do this for # of minutes
- Then you take a break, walk away, and do something else
 - (kind of like Baldwin's 'men in black' approach)
- Then you come back to the writing and read whatever you read
- Look for new ideas, interesting concepts, or connections between ideas that you may not have recognized before

Teacher example: Important issues in applied linguistics

[I will demonstrate]

WRITING WORKSHOP/FREE WRITING

TOPIC: What is the biggest issue in STEM today

Write for 5 minutes without stopping

Break and go back to it

Re-read what you wrote and rewrite sentences that lacked objective prose to have more objective prose

Then we will get into groups and share the free writing/revised parts together

Sharing

- Does writer use objective language appropriately?
- Does the writer use facts to justify their position appropriately?

HW

READ: “A brief foray into style,” pp. 59-77 in How to write a lot (Perusall)

READ: “Linguistic features of academic writing,” pp. 10-34 in Demystifying academic writing (Perusall) (optional)

BRING: An article to class from your track (one that you have not used in class before)

Sources this week

<https://www.adelaide.edu.au/writingcentre/sites/default/files/docs/learningguide-objectivelanguage.pdf>

<https://writingcenter.unc.edu/tips-and-tools/argument/>