

Critical Thinking

Learning Enhancement Team

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Variety is the Spice of Life!

Different Schools...

....Different Rules

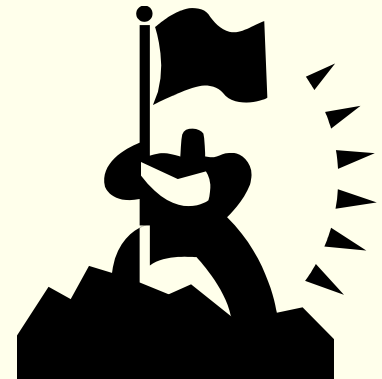
- Can you use 'I' in an academic text?
- Should an essay have section headings?
- How long is a report?
- Do you use primary or secondary research?
- Footnotes, endnotes or no notes?
- Harvard style referencing or MLA? What about APA?

Which school are you in? What is acceptable and what is unacceptable in your field?

Always check in your module handbooks or with your tutor if you are concerned about appropriacy

Critical Thinking Aims

- To personalise Critical Thinking
- To demystify Critical Thinking
- To discuss different ways of thinking



Love It Or Hate It

How do you feel when you are asked to think critically?

- I feel annoyed
- I feel confused
- I feel excited
- I feel interested
- I feel anxious
- I feel intimidated
- I feel....??



Myths

One of the most prevailing myths at university is that writers have to be objective. While this is true (and more so in some fields), it doesn't necessarily mean we shouldn't have opinions. Rather:

- Our opinions should be based on fact
 - Observation
 - Literature
 - Results
- Our opinions should acknowledge weaknesses
 - Advantages *and* disadvantages
 - Limitations
 - Dissenting opinions
- Our opinions must be logically argued
 - Use reason, example, research to support our claims
- Our opinions should relate to the wider field
 - Secondary research
 - Key theories, frameworks, models, hypothesis..
 - Discusses questions being asked in the field

What Is Critical Thinking?

One definition:

“Critical thinking is a desire to seek, patience to doubt, fondness to meditate, slowness to assert, readiness to consider, carefulness to dispose and set in order; and hatred for every kind of imposture” (Bacon, 1605).

Another definition:

"Skilled, active, interpretation and evaluation of observations, communications, information, and argumentation" (Fisher & Scriven, 2007).

A final definition:

Moore & Parker (2012) define it more narrowly as the careful, deliberate determination of whether one should accept, reject, or suspend judgment about a claim and the degree of confidence with which one accepts or rejects it.

Task

Explain to the person next to you *how* and *why* you chose what to wear today. Think about:

- Weather?
- Fashion?
- Practicality?
- Comfort?
- Impression?
- Attractiveness?
- Alternatives?
- Purpose?



Task

- Weather?
 - How did your knowledge of the weather influence you? Where did you get this knowledge from? Is it a reliable source?
- Fashion?
 - Is fashion universal? What does your sense of fashion say about you? Does everyone share your beliefs?
- Practicality?
 - In what situation(s) would your outfit be more/less practical?
- Comfort?
 - How important is comfort? Is it always equally important? Why/not?
- Impression?
 - How important is fashion in making an impression? 'First impressions count'? Is this true? How does fashion reflect this? Is your outfit creating the 'right' impression (if there is such a thing?)?
- Attractiveness?
 - Can we ever truly be objective about this? Does it matter? How does your outfit reflect cultural/national/international ideas of attractiveness?
- Alternatives?
 - What could you have worn? Why didn't you? What would/might/could have happened if you had?
- Purpose?
 - What is the purpose of fashion? Of uniforms? Of clothing? Are you wearing an outfit or a uniform? Is your outfit appropriate for your purpose? Is appropriate for all purposes?

Thinking...

- Finding things out
- Working things out
- Deciding
- Solving
- Justifying
- Remembering
- Planning
- Arguing
- Identifying
- Speculating
- Calculating
- Comparing
- Deducing
- Realising
- Implications
- Analysing
- Summarising
- Hypothesising
- Evaluating
- Sequencing
- Ordering
- Sorting
- Classifying
- Grouping
- Predicting
- Concluding
- Distinguishing
- Noticing exceptions
- Noticing connections
- Realising underpinnings
- Noticing assumptions
- Testing

(Adapted from McGuinness, 1999)

Did you know that in an LDU **Tutorial** we can help you to highlight areas that may require more critical analysis?

Barriers To Critical Thinking

- jump to conclusions
- fail to think-through implications
- focus on the trivial
- fail to notice contradictions
- accept inaccurate information
- ask vague / irrelevant questions
- give / accept vague / irrelevant answers
- ask loaded questions
- answer questions we are not competent to answer
- come to conclusions based on inaccurate or irrelevant information
- ignore information that does not support our view
- make unjustified inferences
- distort data and state it inaccurately
- fail to notice the inferences we make
- come to unreasonable conclusions
- fail to notice our assumptions
- often make unjustified assumptions
- miss key ideas
- use irrelevant ideas
- form superficial concepts
- cannot see issues from other points of view
- are unaware of our own prejudices
- think narrowly
- misuse words
- ignore relevant viewpoints
- think imprecisely
- think illogically
- think one-sidedly
- think simplistically
- think hypocritically
- think superficially
- think ethnocentrically
- think egocentrically
- communicate our thinking poorly
- have little insight into our own ignorance

Being Critical

According to Elder & Paul (1996), Critical Thinking requires:

- Depth
- Breadth
- Rigour
- Accuracy
- Precision
- Clarity
- Relevance
- Logic
- Empathy
- Self-awareness

At university, Critical Thinking also requires Critical Reading. You may therefore like to attend the *AWL Open Workshop* **Understanding Journal Articles**.

Relevance

A critical thinker is *always* questioning – nothing is ever taken for granted! The most common question is that of ‘relevance’:

- Is this connected to the issue / question? Why / not? In what ways? To what extent?
- How does this bear on the issue / question? Why?

But you should also be asking:

- Yourself
 - Do I think this is good/bad? Why? How can I convince others I’m right? Where are the flaws (they will be flaws!), and how do I account for them?
- The research:
 - Who wrote/said/believes this? Why? What do they want? What evidence do they use? Are they convincing? Who agrees/disagrees with them – and why?

Clarity

The aim of any argument is to convince. At university this is especially true, and therefore you must aim for clarity. A confused argument is not a convincing one. Remember:

- Could / should you elaborate further on that point? If so, how?
- Could / should you express that point in another way? If so, how?
- Could / should you give the reader an illustration?
- Could / should you give the reader an example?

The *AWL Open Workshop Academic Style, How To Write Effective Paragraphs* and *How To Proofread Effectively* may help your clarity.

Accuracy & Precision

As an academic you are expected to be rigorously accurate and precise in order to maintain the credibility of your argument. These academic standards cannot be ignored, no matter how critical your opinion. Always ask yourself:

- Is that really true?
- To what extent is that (not) really true?
- In what ways is that (not) really true?
- How could we check that?
- How could you find out if that is true? What information / source do you need?
- Is that information / source sound? Can I trust it? Why / not? In what ways? To what extent?
- Could you give more details?
- Could you be more specific?
- What exactly are you saying?
- What exactly might you be [inadvertently] suggesting or implying? Is that intended / justified? Why / not?

Breadth & Depth

As we've already discussed, Critical Thinking is deep thinking. Remember to push yourself further:

Breadth:

- What might this look like from a different viewpoint?
- Do you need to consider another point of view? Why / not? Whose point of view? Why? To what extents?
- Are there other way(s) to look at this issue / question? What? Why? Are they valid? Why / not? To what extents are they (not) valid? What evidence is there to support me / them?

Depth:

- Does your statement truly address the complexities in the question? Why / not?
- Are you taking into account the problems in the issue / question? In what ways? To what extents?
- Are you dealing with the most significant factors? Why / not? In what ways?

Logic

This may seem obvious, but it can be difficult to be logical on paper. What makes sense to us may not to someone else. We must therefore guide the reader, helping them to see the logic of our argument. Always check:

- Does this really make sense? Why / not? To who? In what ways?
- Does this really follow on from what you've already said? Why / not? To what extent? How?
- Have you written other ideas which contradict this? What? Where? Can both be true? Why / not? To what extent? In what ways?
- Is there sufficient evidence to support this? Why / not? Is other evidence possible here? Why / not? Does a lack of evidence invalidate the argument? Why /not?
- Is the logic only subjectively logical or is it objectively logical? Why? In what ways? Is this a problem? Why / not?

Beware of subjectivity – you cannot escape it, but you must try to logically explain and justify it

Rigour & Empathy

Being rigorous means being honest, being empirical and being self-analytical. Some questions to keep in mind are:

- Is there sufficient evidence to support this? Why / not? Is evidence possible here? Why / not? Does a lack of evidence invalidate the argument? Why /not?
- Is the logic only subjectively logical or is it objectively logical? Why? In what ways? Is this a problem? Why / not?
- Has another ideology influenced your logic? To what extent? Is this a problem? Why / not?
- Are there any caveats to your argument / point of view? What? Do they invalidate anything? Why / not?

Rigour and empathy/self-awareness are closely related:

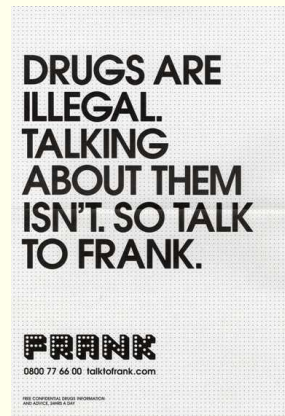
- How will your point of view seem to other people?
- Has your ideology influenced my / your logic? To what extent? Is this a problem? Why / not?

Embrace Complexity

Life is complex. A statement may be clear, accurate, precise, and relevant, but lack depth:



Alternatively, a statement may be clear accurate, precise, relevant, and deep, but lack breadth:



Does this mean these statements are wrong? How is their relevance effected? Are they still appropriate? Do they serve a purpose? Could their lack of breadth / depth be an advantage?

Task

Look at the following statement. With a partner, critically discuss it.

“Broken Britain, with its rising violence, deepening stress, growing isolation and escalating crime, has been caused by the rejection of the traditional extended family.”

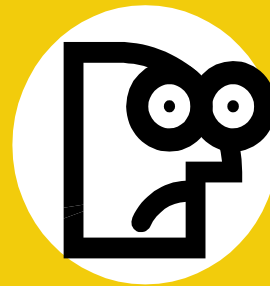
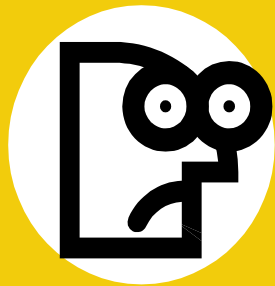
Think about:

- What are the author’s underlying assumptions?
- What evidence is there to support this?
- What is the definition of ‘violence’, ‘stress’, ‘isolation’ and ‘crime’?
- What is a ‘traditional extended’ family? What is ‘non-traditional’? What is ‘tradition’?
- How does (does?) family life affect society?
- How does this relate to other evidence (your observation / experience)?
- If we accept this, what are the possible outcomes?
- If we accept this, is there a solution? How?
- If we reject this, on what grounds?
- If we reject this, do we reject it entirely? Why? Why not?

Where now?

- Need more detailed assistance? [Book a tutorial!](#)
- Want feedback on a specific section? [Drop in to Getting Your Assignment Ready!](#)
- Want somewhere quiet to write, and get on the spot assistance? [Try The Writing Space!](#)
- Got a few quick questions? *AWL Office Hours* at [The Study Hub] are for you!
- *AWL Open Workshops* can be [booked here!](#)
 - *Suggestions:*
 - How To Read Journal Articles
 - Academic Style
 - How To Write Effective Paragraphs
 - How To Proofread Effectively
 - Book a tutorial

Critical Thinking



It's QUESTION TIME!!

References

Elder, L. & Paul, R. (1996), *Universal Intellectual Standards* [online], available at <http://www.criticalthinking.org/articles/universal-intellectual-standards.cfm>, accessed 12.09.2011

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