Overview

Words are the basic building blocks of arguments. But how often do we pause to take a closer look at the meanings of words, how we select and combine them, and how they are used to persuade us?

The selections and arrangements of words and sentences which represent thinking and its outcomes will invariably affect the interpretation and production of meaning. Thus the necessity of understanding the primacy of language and the importance of words for effective critical thinking (Moore, 2011).

Although critical thinking involves seemingly ‘abstract’ processes which can be represented in various ways, the outcomes of such thinking are usually presented in ‘natural languages’ such as English, Chinese, Arabic and so on.

Mathematics and science use ‘formal languages’ such as numbers, formulae, symbols, codes, graphs and diagrams to present their arguments and findings - and yet scholars in these fields still need to present their work in a formal academic document which converts the results of research (data) into good scholarship. This scholarship employs natural language, and is therefore subject to all of the advantages (and limitations) demonstrated by clear critical thinking expressed in such language.

Thinking about language is probably as old as language itself, and there are numerous competing views about the purposes, structures and function of language. Some of these need to be briefly mentioned in forthcoming sections. Since each academic discipline uses language in very specific ways, once again, it is unsurprising that we cannot think critically without taking into account the foundational role of language.

Scholars have long been debating whether critical thinking skills are general and ‘generic’, or apply only within the context of a specific discipline. However, it does not have to be an ‘either - or’ situation. We can say that ‘generic’ universally applicable principles of effective thinking are necessary, but also that there are certain methods which make sense only in the context of a specific domain of knowledge.

Academics who study literature and poetry could well teach engineers about the nexus between language and thinking. On the other hand, the engineers will also have insights about methods of reasoning and logic which could be very useful to scholars in the humanities. This suggests that the most effective critical thinking takes into account (as much as possible within disciplinary constraints) the fundamental inter-disciplinarity of all socially constructed knowledge.

One important point is that the use of natural human language masks many aspects and agendas about the nature of truth, who has the authority to make ‘true’ statements within a discipline, and so on. In short, if all knowledge is largely socially constructed, and language is at the base of this construction, then understanding how language is used, and for what purposes is crucial to our aim of becoming better thinkers.

To this end – and to show that in the academic world, matters are never finally ‘resolved’, and that they are always subject to critique – we need to engage in the systematic practice of doubt, or what Moore (2011, p.14) cites as ‘the exercise of careful judgement or observation’.
2.4 Why words matter

2.4.1 Language in use: formal and rhetorical aspects

To continue our focus on language we can say that, in broad terms, any argument given in a natural alphabetic language (such as English) is comprised of the following elements:

Words are combined to form clauses which are built up into sentences, paragraphs and whole texts. Each text is further informed by the broader historical and social contexts in which it is produced and reproduced, and the ways in which it interacts with other texts. Because the chosen words and the ways in which they are combined are the very means through which the claims and evidence of an argument are communicated, **effective critical thinking requires an awareness of how language itself is used.** In other words, we cannot take language for granted.

The validity of an argument in a natural language can be evaluated by considering two important aspects of language:

<table>
<thead>
<tr>
<th>Formal Aspects</th>
<th>(The relations between premises (reasons) &amp; conclusions.)</th>
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</thead>
<tbody>
<tr>
<td>Rhetorical Aspects</td>
<td>(The persuasive power of chosen words as well as how these words are combined.)</td>
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</table>

As will be discussed later in the program, formal aspects of an argument indicate whether or not the conclusion *necessarily* follows from the premises, if those premises are true. In a formal argument, there must absolute certainty about the meaning of each word, and the truth of the premises. However, in informal arguments, there is often much room for interpretation of meanings of words, analogies and examples used to support the argument.
2.4.2 The ‘correspondence theory of truth’

As noted above, there are various theories of truth. The ways in which we view language, are tied up with our view of the truth. This is because we use language to express what we consider to be true. However, this is not without its drawbacks. Like any system of representation, natural human language has its limitations.

One important theory of truth which informs so much of our everyday (as well as our academic) experience is the **Correspondence Theory of Truth**. This theory states that a sentence can considered to be ‘true’ if it seems to accurately ‘correspond’ to what we perceive to be the case. For example, the sentence ‘there is a black cat sitting at the window’ is considered to be true, if it is verified by my visual confirmation of this state of affairs.

This seems reasonable. However, there is a problem. The truth of the assertion will really depend on the accuracy of our perception, the definitions and the words which we choose.

Our example of the black cat may seem trivial. After all, common sense tells us that we should all agree that it is reasonable to assert that the picture above shows a black cat sitting at a window.

However, in other examples we might choose, it can be shown that different people may have differing perceptions, and therefore use differing definitions and words to accurately express what they perceive to be the case.

Take the example of looking at the figure of a cube. Of course, we know that an actual cube is three-dimensional and has height, width and depth. However, in the two-dimensional figure given below, depending on how we look at it, side ‘A’ could be construed as being at the front or the back of the cube. The philosopher, Ludwig Wittgenstein, used this example of different ways of looking at the figure of a cube to conclude that the idea of potentially different perceptions can be applied to ‘all similar phenomena’. (Wittgenstein, 1981, p.54)

Another important philosopher, Friedrich Nietzsche, expresses his scepticism of the value of accepting things as they appear:
Nietzsche has often been described as a ‘perspectivist’ - that is, as someone who thinks that our version of reality depends upon the position (or perspective) from which we view something. Change your perspective, and you change your perception of, and therefore your conclusion about something.

To add to this problem of ‘reality’ depending on our viewing position, we are faced with the further complication that when we use words to describe an experience or idea, there is even more possibility that what is being re-presented by the words will be described differently by different people interpreting words in different ways.

Generally speaking, a speech community decides on the ‘meanings of words’ represented by custom, agreed convention, and language in everyday use. However, because human languages are always in a state of change, there is no way that meanings can remain ‘fixed’ and unchanging, even if these changes are very slow and very subtle.

In discussing the weaknesses of the Correspondence Theory of Truth, we have come to the core of something very important to critical thinking.

Here we have two fundamental issue:

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Viewing position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representation</td>
<td>The form in which something is presented</td>
</tr>
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</table>

So, this is what we have to consider, very briefly in the next section some competing views on the nature of language.

### 2.4.3 Some competing views on the nature of language

Just as there are various theories of truth, there are a range of theories about language and meaning. Some of these are briefly mentioned here in order to demonstrate that using natural human language as a vehicle to express truth is not without problems. This should encourage us to be as careful and accurate as possible whenever we are engaging with words for the purposes of analysis, critique or constructing our own arguments.

Linguists and philosophers have attempted to explain the relationships between language, experience, meaning and knowledge in numerous ways. The following are examples of the particular emphases given in some of these explanations:

(i) Language *constructs* reality.
(ii) Language *represents* reality.
(iii) Linguistic structures are *universal*.
(iv) In language, meaning is produced through *difference*.
(v) Language produces meanings which are *multiple*, *dispersed* and *deferred*.

Activity: Have a go at Activity One on the right-hand side of the screen.
2.4.4 Denotation, connotation

Each word that we encounter or use in an argument will have a ‘literal’ meaning, which is usually the primary meaning which is given in the dictionary definition. This primary meaning is often referred to as the **denotation** of a word.

However, use of any word will often trigger a range of associated or indirect meanings. These associated or secondary meanings are known as the **connotations** of a word.

We will usually interpret which connotations are implied by considering the context of the utterance. The following sentence provides an example.

Example: “The minister gave a very *frank* response to the departmental report."

<table>
<thead>
<tr>
<th>Denotation</th>
<th>(primary meaning)</th>
<th>‘frank’ ‘honest’, ‘direct’, ‘straightforward’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connotations</td>
<td>(associated meanings)</td>
<td>‘frank’ ‘rude’, ‘insensitive’, ‘unsubtle’</td>
</tr>
</tbody>
</table>

This shows that when we evaluate the language of others, we need to be very mindful of the denotative and connotative dimensions of words.

2.4.5 Ambiguity, polysemy, indeterminacy

Earlier, we considered the fact that although certainty was the goal of critical thinking, we often encounter and have to accept a great deal of uncertainty. As we have shown with the distinction between denotation and connotation, rather than provide clarity, the richness of language may sometimes lead to confusion. However, this is not always a bad thing.

**Ambiguity and polysemy** are properties of language which allow for the possibility of *more than one interpretation*. Such a possibility introduces an element of **indeterminacy**, which means that the conclusion (and thus the validity) of an argument may be in doubt. Once again, we need to remember that when evaluating arguments we need to be mindful of **the extent to which an argument is more or less valid, more or less invalid**.

As much as possible, effective critical thinking tries to identify terms which exhibit ambiguity or polysemy and seek clarification by thoroughly contextualizing their use.

Nevertheless, it also has to be acknowledged that because we are dealing with arguments given in natural language, it will be impossible to entirely eliminate such features of language.

Many writers, poets and philosophers actually welcome this possibility of multiple interpretations as it allows them to create greatly enriched texts.

However, for most critical thinking within an academic context, the question will always be:

“To what extent do elements of ambiguity and polysemy inhibit our attempts to assess the validity of an argument?”

**Activity:** Have a go at Activity Two on the right-hand side of the screen.
2.4.6 Paradigm and syntagm: Choosing words and then combining them

To construct any claim or statement, it is necessary to choose particular words or phrases, and then think about how to combine them. The persuasive power of an argument will be greatly influenced by these choices. Linguists use the following terms to describe these:

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>A group of similar words belonging to the same category</th>
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</thead>
<tbody>
<tr>
<td>Syntagm</td>
<td>A particular combination of individual words chosen from various categories</td>
</tr>
</tbody>
</table>

This paradigm is comprised of words used to depict groups which challenge the authority of another group, a government or a nation. If we are writing about such groups, then depending on our point of view, and the argument(s) we are trying to construct, we will be forced to choose one or more of these words.

We will then have to make another decision about how we choose to combine the words chosen from this group, with the words chosen from other groups. The resulting sentence can be called a syntagm because it combines our choices from the various categories into a meaningful string of words.

<table>
<thead>
<tr>
<th>Syntagm</th>
<th>Particular combination of words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Category of modifying clause</td>
</tr>
<tr>
<td>In</td>
<td>an act of desperation, rebels</td>
</tr>
<tr>
<td>In</td>
<td>an act of defiance, activists</td>
</tr>
<tr>
<td>In</td>
<td>an act of courage, freedom fighters</td>
</tr>
<tr>
<td>In</td>
<td>an act of savagery, terrorists</td>
</tr>
</tbody>
</table>

It is clear from this simple example that the selection and combination of words reflects the values of the writer. Words are carefully chosen as part of an overall rhetorical or persuasive strategy.
As critical thinkers, we need to ask: “what are the connotations of each particular word, and what is the overall effect of each particular combination.”

Not only can the order in which we place words in a sentence make a big difference in meaning, even the choice of the ‘active’ or ‘passive’ voice (which influences word order) can have a significant effect on the overall meaning of a sentence.

| ‘The activists occupied the steps of parliament house.’ | active voice |
| ‘The steps of parliament house were occupied (by the activists).’ | passive voice |

As one final example, think about how the following selections and combinations of words may reflect subtle differences in the attitudes and values of the writer:

| The government imposed a new tax. |
| The parliament applied a further surcharge. |
| The authorities legislated for another levy. |
| The minister levied an extra impost. |

Activity: Have a go at Activity Three on the right-hand side of the screen.

**Conclusion**

This section has demonstrated the importance of looking very closely at language in order to practice effective critical thinking. It is clear that this focus on how language is used, provides the foundation for analysing and critically evaluating the arguments of others in preparation for constructing our own arguments.