

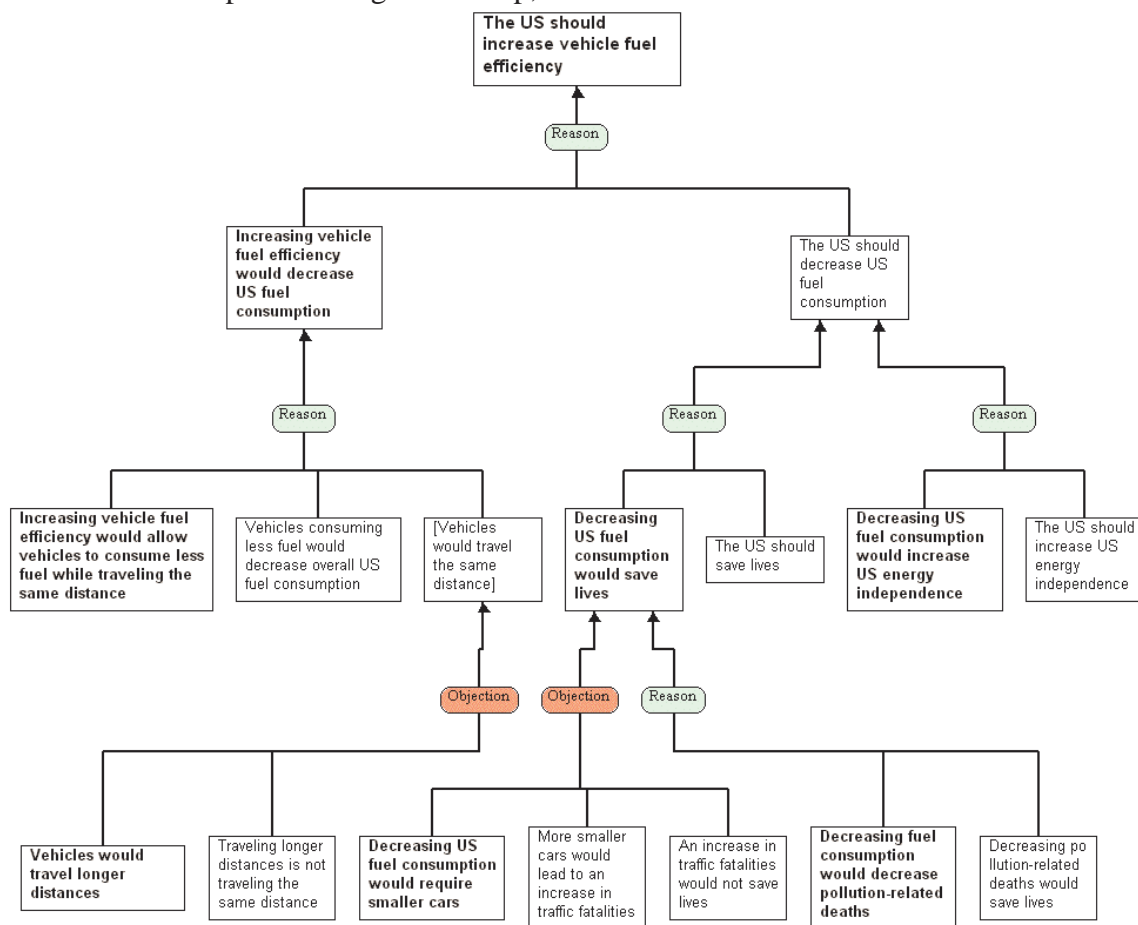
Argument Mapping for Critical Thinking

Jamel Ostwald (History)

Argument Maps

An argument map is a spatial representation of an argument that allows us to visualize its logical structure. Such maps allow us to clearly see exactly how each part of an argument relates to every other part – how a main conclusion is supported by reasons, which in turn are supported by their own reasons, which in turn are supported by their own reasons, and so on. Argument maps illustrate this logical structure in box-and-arrow form. Once arguments are translated into map form, the heuristics developed by Austhink (www.austhink.org) make it easy to identify unstated assumptions, recognize invalid claims, and assess the truthfulness of conclusions.

Here is one example of an argument map, created with the Reason!able software.



Argument maps are designed for “arguments” in the philosophical sense of claims that a particular statement is true or warranted, along with the reasons why we should believe that statement true.

Advantages

The essay “Enhancing our Grasp of Complex Arguments” (below) provides an excellent overview of the advantages of argument mapping. Generally, these include:

- Efficient display of an argument’s structure – they can easily summarize many pages of a complicated debate in a single map.

- Clear display of the logical structure of an argument – translating arguments from prose form into map form is good practice for critical thinking.
- Explicit identification of each copremise – this encourages students to identify unstated assumptions and demand evidence for each of the components of an argument.

In the Classroom

Argument mapping can be used in a variety of ways:

1. as a pre-designed illustration of an argument (on the blackboard/screen)
2. to facilitate comprehension with real-time mapping of class discussion
3. taught explicitly to students as part of a dedicated critical thinking component

Resources and Sources

The specific argument mapping process described here was developed by the Reason! Project headed by philosopher Tim van Gelder. The related company Austhink has created software to assist in argument mapping – I have no affiliation with either group. The Reason! software illustrated above has just been replaced with an enhanced application called Rationale, available for around \$50 for a single educational license, \$20 for a single year license. The demo version is a free download. The 4th floor Webb Hall computer lab will have licensed copies of this Rationale software installed and available for use. Austhink has also created a number of online support materials, including a series of online tutorials for a semester-long critical thinking course taught at Melbourne.

Strongly recommended readings (both at www.austhink.org) include:

- Monk and Van Gelder, “Enhancing our Grasp of Complex Arguments.”
- Twardy, “Argument Maps Improve Critical Thinking.”

A number of other (published) pedagogical studies can also be found there, which argue that argument mapping is far superior to other methods of teaching critical thinking.

The following websites include the Austhink software and discuss argument mapping in great detail:

www.austhink.com

www.austhink.org

www.goreason.com

Thanks to a Summer Curriculum Development Grant, I have written a number of online tutorials introducing argument mapping, tailored to students in my Religion, War and Peace in Early Modern Europe course. These are far shorter than Austhink’s Mapping tutorials, which were designed for a semester-long course dedicated solely to critical thinking. My tutorials are available on the website www.jostwald.com, and may be freely used and adapted by others. The new Rationale software includes a number of shorter exercises.