

## MEMO N°3 : ORGANIZING YOUR ARGUMENTATION

### 1. THE 5 « W'S »

A good argumentation consists of :

- ① The **accuracy** of the arguments : this is the technical part of argumentation guaranteed by one's expertise.
- ② The **consistency** of the argumentation, which is implemented by the use of clear logical connectors (« therefore », « furthermore », « nevertheless » etc.).
- ③ The **comprehensiveness** of the argumentation, which means the input of various arguments : technical but also political, ethical...and the use of counter-arguments.

A good way NOT to forget major data is to use the grid of the 5 “W’s”, originally a journalistic device :

- ① **Who** are the **actors** ? Individuals, institutions, social groups, political parties, economic actors etc.
- ② **What** are the **facts** ? Events, process, phenomena, structures, etc.  
! A same thing can be actor and/or object : an institution, a social group, a country.
- ③ **When** are the facts happening ? It is important to avoid general statements “at all periods of time, men...” It is therefore important to identify the major events, the meaning of starting and ending dates of a topic, and to distinguish different intermediary periods, the short term and long term.
- ④ **Where** are the facts happening ? The issue of **geography** : local, regional, national, continental, global scales. It is important to always identify the spatial variations of a phenomenon.
- ⑤ **Why** are the facts happening ? The issue of **causes** : immediate causes/ structural causes ; internal causes/ external causes ; political, social causes, etc.

To order all these facts into a **structured argumentation** the famous « TOULMIN model of argument », can be used with great profit.

## 2. THE TOULMIN MODEL OF ARGUMENT

### TOULMIN MODEL OF ARGUMENT:

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The twentieth-century British philosopher Stephen Toulmin noticed that good, realistic arguments typically will consist of six parts. He used these terms to describe the items.

**Data:** The facts or evidence used to prove the argument

**Claim:** The statement being argued (a thesis)

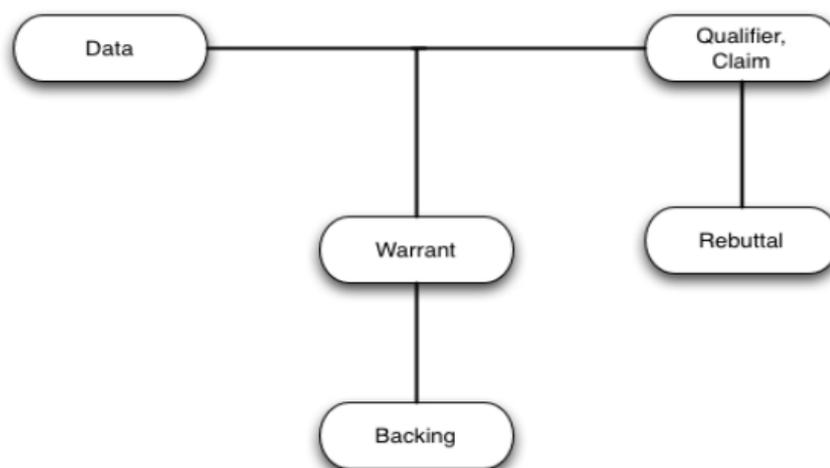
**Warrants:** The general, hypothetical (and often implicit) logical statements that serve as bridges between the claim and the data.

**Qualifiers:** Statements that limit the strength of the argument or statements that propose the conditions under which the argument is true.

**Rebuttals:** Counter-arguments or statements indicating circumstances when the general argument does not hold true.

**Backing:** Statements that serve to support the warrants (i.e., arguments that don't necessarily prove the main point being argued, but which do prove the warrants are true.)

Toulmin's diagram of arguments typically looks something like this example:



### Toulmin Model of Arguments

An argument written in this manner unfolds to reveal both the strengths and limits of the argument. This is as it should be. No argument should pretend to be stronger than it is or apply further than it is meant to. The point here isn't to "win" or "beat" all the counter-arguments; the point is to come as close to the truth or as close to a realistic and feasible solution as we possibly can. Note that opening structure of "Data" leads to "Claim with qualifiers" is similar to the structure of a thesis in the form of an enthymeme, in which [one clause presenting a reason or evidence] leads to [another clause presenting an argument.]

Toulmin's model reminds us that arguments are generally expressed with qualifiers and rebuttals rather than asserted as absolutes. This lets the reader know how to take the reasoning, how far it is meant to be applied,

and how general it is meant to be. Here is an example from John Gage's *The Shape of Reason* in which the various parts of an argument are labeled:

*Congress should ban animal research (Claim #1) because animals are tortured in experiments that have no necessary benefit for humans such as the testing of cosmetics (Data). The well being of animals is more important than the profits of the cosmetics industry (Warrant). Only congress has the authority to make such a law (Warrant) because the corporations can simply move from state to state to avoid legal penalties (Backing). Of course, this ban should not apply to medical research (Qualifier). A law to ban all research would go too far (Rebuttal).*

*So, the law would probably (qualifier) have to be carefully written to define the kinds of research intended (claim #2).*

The Toulmin model is useful for analyzing an argument you are reading. That was Toulmin's original purpose--the analysis of how arguments work. On the other hand, some students find it useful to use the Toulmin model as a basis for structure and organization. We might organize our essay in the following manner:

- I. Introduction of the problem or topic.
  - A. Material to get the reader's attention (a "hook")
  - B. Introduce the problem or topic
  - C. Introduce our **claim** or thesis, perhaps with accompanying **qualifiers** that limit the scope of the argument. (NB: This will help you cut the topic down to a manageable length.)
- II. Offer **data** (reasons or evidence) to support the argument.
  - A. Datum #1
  - B. Datum #2
  - C. (and so on)
- III. Explore **warrants** that show how the data logically is connected to the data
  - A. Warrant #1
  - B. Warrant #2
  - C. (and so on)
- IV. Offer factual **backing** to show that logic used in the warrants is good in term of realism as well as theory.
  - A. Backing for Warrant #1
  - B. Backing for Warrant #2
  - C. (and so on)
- V. Discuss counter-arguments and provide **rebuttal**
  - A. Counter-argument #1
  - B. Rebuttal to counter-argument #1
  - C. Counter-argument #2
  - D. Rebuttal to counter-argument #2
  - E. (and so on)
- VI. Conclusion
  - A. Implications of the argument, summation of points, or final evocative thought to ensure the reader remembers the argument.

Source : <https://web.cn.edu/kwheeler/documents/Toulmin.pdf>

Test of understanding : if you have understood Toulmin's model, you will find ONE mistake in the explanation provided by cn.edu.

Another example is given by Stacy Weida and Karl Stolley

Claim : Hybrid cars are an effective strategy to fight pollution.

Data1 : Driving a private car is a typical citizen's most air polluting activity.

Warrant 1 : Because cars are the largest source of private, as opposed to industry produced, air pollution, switching to hybrid cars should have an impact on fighting pollution.

Data 2 : Each vehicle produced is going to stay on the road for roughly 12 to 15 years.

Warrant 2 : Cars generally have a long lifespan, meaning that a decision to switch to a hybrid car will make a long-term impact on pollution levels.

Data 3 : Hybrid cars combine a gasoline engine with a battery-powered electric motor.

Warrant 3 : This combination of technologies means that less pollution is produced. According to ineedtoknow.org "the hybrid engine of the Prius, made by Toyota, produces 90 percent fewer harmful emissions than a comparable gasoline engine."

Counterclaim : Instead of focusing on cars, which still encourages a culture of driving even if it cuts down on pollution, the nation should focus on building and encouraging use of mass transit systems.

Rebuttal of the counterclaim : While mass transit is an environmentally sound idea that should be encouraged, it is not feasible in many rural and suburban areas, or for people who must commute to work;

Final claim (qualified) : thus hybrid cars are a better solution for much of the nation's population.

Source <https://owl.english.purdue.edu/owl/resource/588/03/>

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Conclusion : Toulmin' s model is indeed a very souple one that allows all types of argumentation, from the basic one to the most elaborate : one can multiply the « claims », « warrants », « backings » and so on. Which is precisely the requirements of the « Grand O » : handling complex issues.

This model works also as a relevant test to check if you are accurate, consistent and comprehensive : are the warrants and backings relevant and solid enough ? Did you not forget major data ? Is your claim clear and substantiated ? Did you think of all relevant objections to it ?

A good tutorial explaining the Toulmin model and its implications can be found on <https://www.youtube.com/watch?v=D-YPPQztuOY>