DBAI

The Minto Pyramid Principle
*or the case for hierarchically structured thinking
and communication...*

The Proseminar Quadrology (2/4)
http://education.dbai.tuwien.ac.at/wie/WS05/

Wolfgang Gatterbauer
Vienna, November 4, 2005

A LETTER FROM A FRIEND (1/3)

Dear Shirley,

Remember last Saturday afternoon when I was playing in the park with my boyfriend and you came over, and he told me that when my back was turned, you kissed him?

And also, on Sunday when you came to my house and my Mom made you a tuna fish salad for lunch and you said: "Yech! That's the worst salad I ever ate!"?

And yesterday, when my cat brushed against your leg, you kicked her and threatened to sic your dog "Monster" on her?

Well, for all of these reasons, I hate you, and I no longer want to be your friend.

Lucy

Wouldn't the message be far clearer if the letter were written that way?

A LETTER FROM A FRIEND (2/3)

Main statement or "governing thought"

Dear Shirley,

I HATE you. Here are my reasons:

1. *You stole my boyfriend.*
2. *You insulted my mother.*
3. *You scared my cat.*

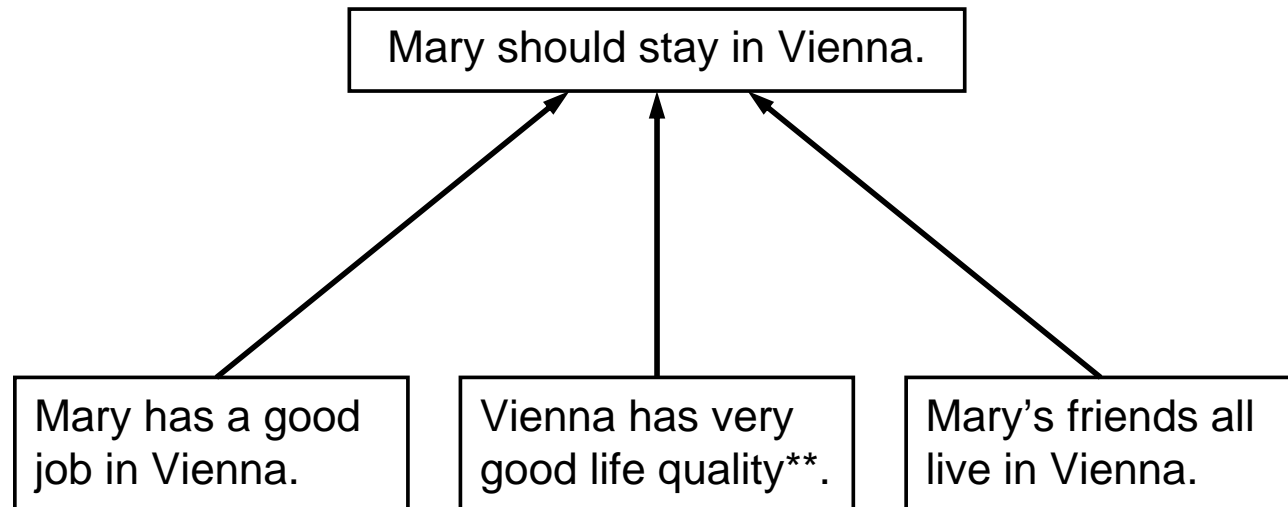**Reasons supporting the governing thought**

In the second letter, the hierarchy of Lucy's actual thoughts becomes more explicit and can be considered as a fictitious question-answer dialogue with the addressee.

A LETTER FROM A FRIEND (3/3)
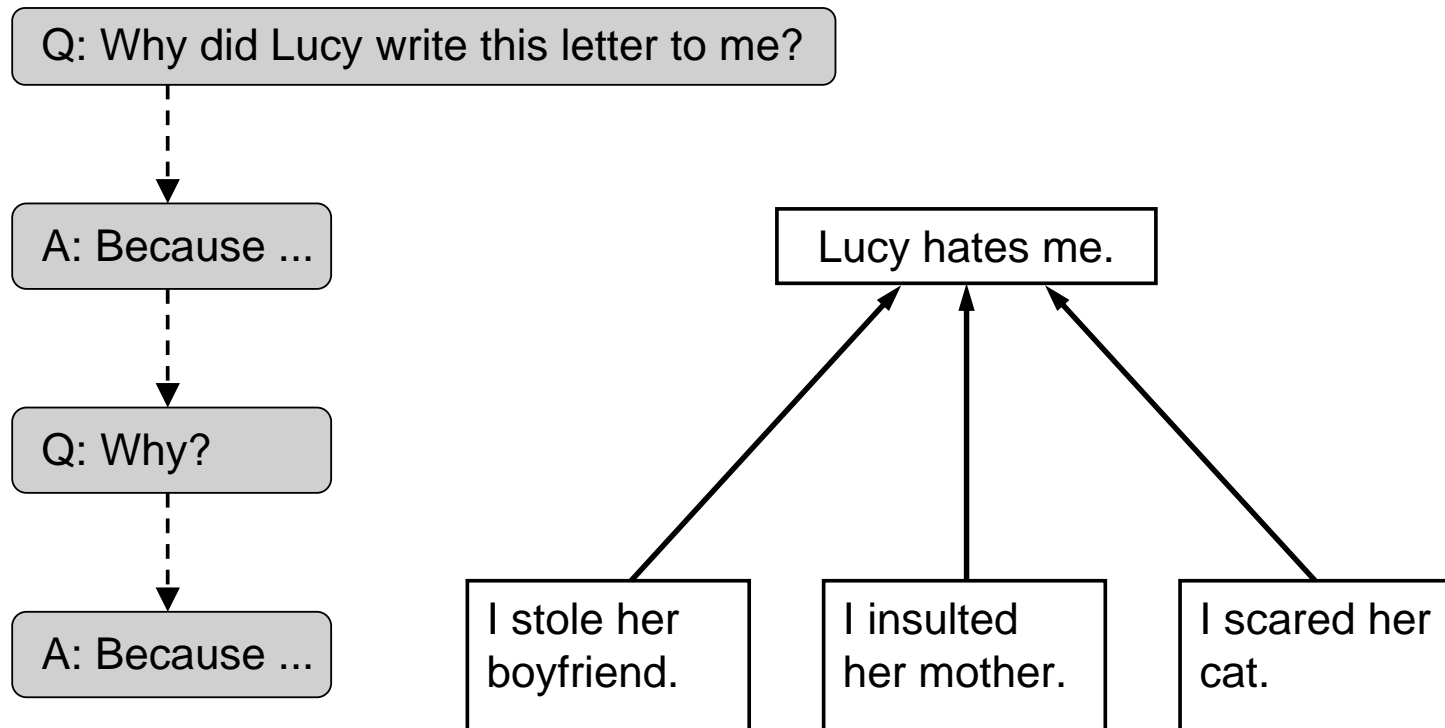
Any main statement can be either supported by an independent group of arguments ...

STAYING IN VIENNA (1/2) – INDUCTIVE LOGIC*

Mary should stay in Vienna.

Mary has a good job in Vienna.

Vienna has very good life quality**.
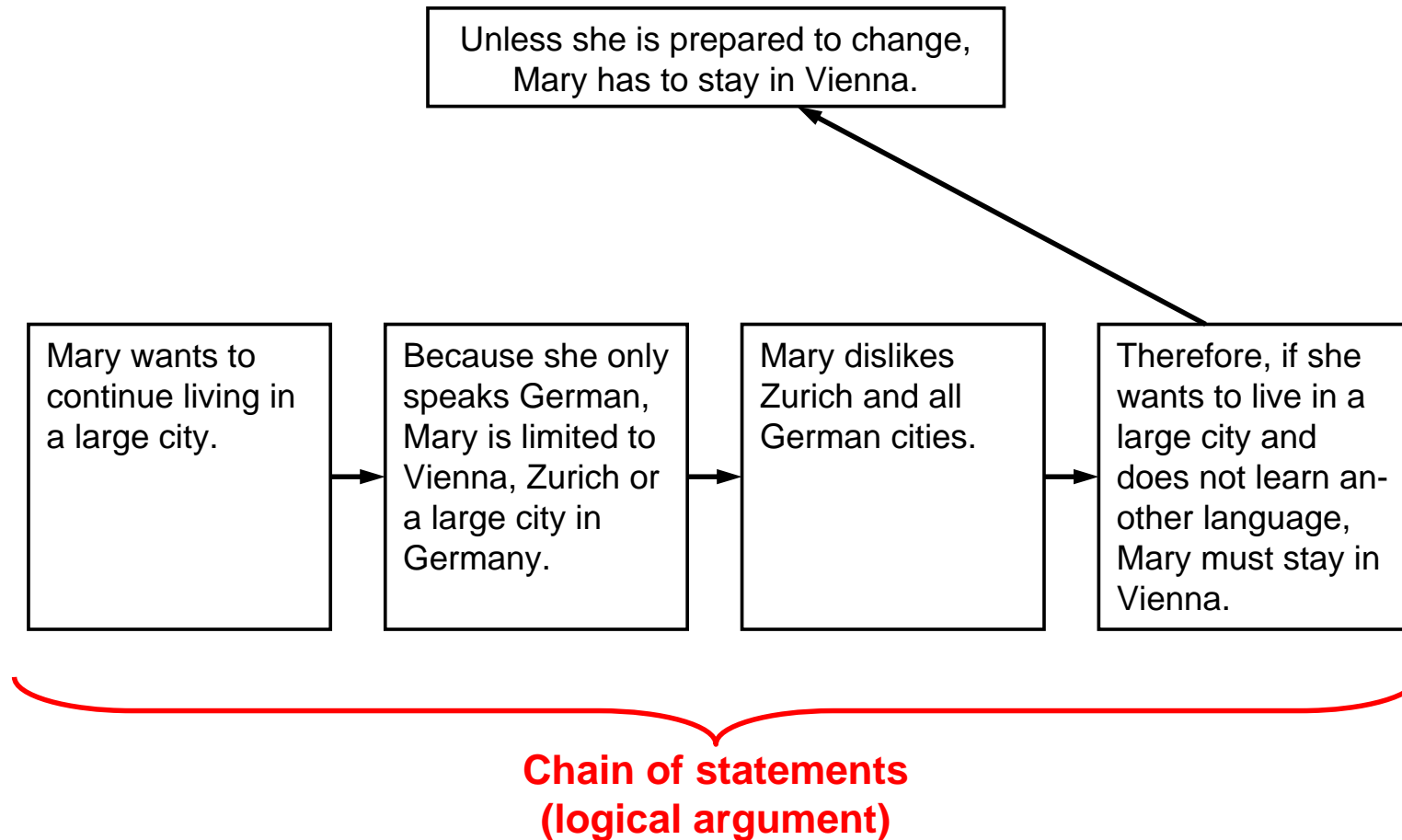
Mary's friends all live in Vienna.

Independent group of answers (logical grouping)

* *Induction* [MW05]: inference of a generalized conclusion from particular instances.
** Vienna is the second best city to live in according to a 2005 survey from the Economist Intelligence Unit (EIU) on living quality in 127 cities of the world. Vancouver is ranked first.

... or by a chain of statements that together form a logical argument.

STAYING IN VIENNA (2/2) – DEDUCTIVE LOGIC*

|			
	Unless she is prepared to change, Mary has to stay in Vienna.		
Mary wants to continue living in a large city.	Because she only speaks German, Mary is limited to Vienna, Zurich or a large city in Germany.	Mary dislikes Zurich and all German cities.	Therefore, if she wants to live in a large city and does not learn another language, Mary must stay in Vienna.

**Chain of statements
(logical argument)**

* *Deduction* [MW05]: the deriving of a conclusion by reasoning.
Syllogism [MW05]: deductive argument, consisting of a major and a minor premise and a conclusion.

In such a way, we can also answer the question about why we discuss this topic in class.

MOTIVATION OF THE TOPIC*
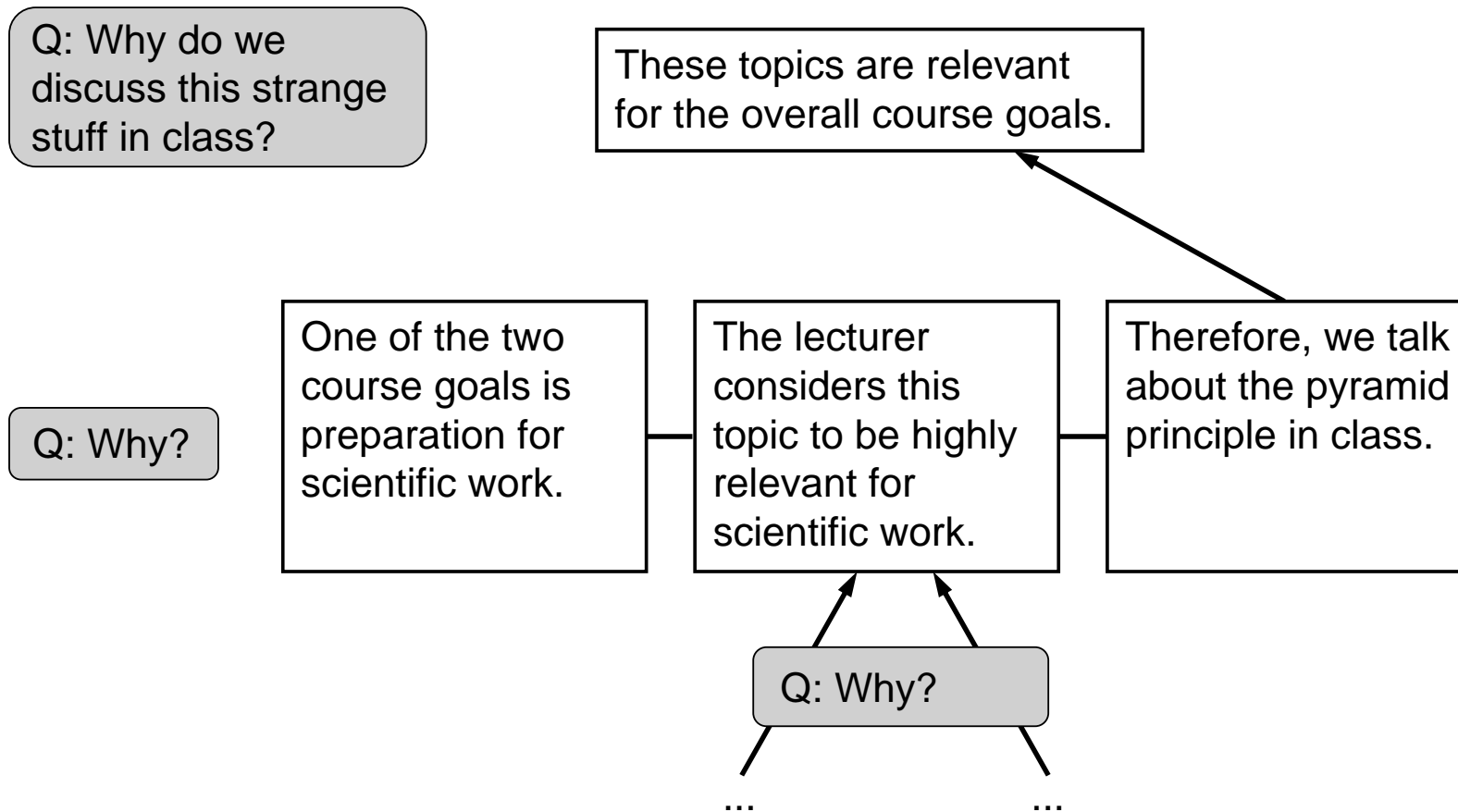
Whenever you read or a write a scientific paper, first "distill" the key message, and then analyze or support it along a logical question-answering pyramid.

REMEMBER

Key message First find or state the key message before you plunge into details.

Questions Ask questions before you give answers (even if it's only in your mind).

Pyramid Envision the question-answering process to follow top-down a fictitious logical pyramid structure*.

RELATED LITERATURE AND SOURCES

Many people consider Barbara Minto as the thought leader on logically structuring facts and ideas. She is especially well known for being the founder and author of *The Minto Pyramid Principle*. Student can order her book directly with her for a reduced price of 35 EUR (November 3, 2005):

- [Min96]: Barbara Minto. *The Minto Pyramid Principle: Logic in Writing, Thinking, and Problem Solving*. New and expanded ed, Minto International, 1996, ISBN: 0960191038.
http://www.barbaraminto.com/book.htm (November 3, 2005).

The example of Lucy writing to Shirley is taken from the following book with kind permission of Gene Zelazny:

- [Zel99]: Gene Zelazny. *Say It with Presentations: How to Design and Deliver Successful Business Presentations*. First edition, 1999, McGraw-Hill, ISBN: 0071354077.

Definitions are taken from:

- [MW05]: Merriam-Webster OnLine. http://www.m-w.com/ (November 3, 2005).

Thanks to Barbara Minto, Markus Gremmel and Gerhard Zehetner for useful comments and suggestions.

Backup

REMARK 1 – TOP-DOWN VS. BOTTOM-UP

We made arguments for logically structuring your ideas top-down. Depending on the situation, it might make sense to actually present your reasoning bottom-up. Take the example from slide 5 and imagine you try to convince Marry that she has to learn English if she does not want to stay the rest of her life in Vienna. When talking to her, you might want to start with the premises before stating the conclusion.

Still, despite presenting your reasoning bottom-up, you would let *the governing thought*, top-down, "govern your own thinking" while constructing your argument.

Draw the analogy to a (hypo)thesis in scientific research. You start with a problem, make a hypothesis and try to prove it. If it won't work, you have to be honest to yourself and change the hypothesis.

On the other hand, great breakthroughs in science and evolution tend to be bottom-up. Tim Berners-Lee might not have tried to prove the idea of the WWW when he first worked on his personal hypertext system 'Enquire' in 1980.

But even in this case, he will have followed some idea, some dream, some end goal in mind, even if it was still not what it later turned out to be.

REMARK 2 – POSSIBLE NAMING AMBIGUITY

Watch out for a possible naming ambiguity between the *Minto Pyramid Principle* and the *inverse pyramid structure* of writing.

In journalism, the *inverse pyramid structure* (IPS) of writing refers to reporting a news story from the most important material to the least important, separating the statement of what happened from the specific detail of how and why it happened. This writing style contrast to the *chronological style* of fiction, in which a story is told in the sequential order in which events occurred.

The main difference between the *Minto Pyramid Principle* and the IPS is that the former presents ideas and conclusions that rest on logical analysis and reasoning, whereas the latter is used to report facts in typical news writing style, starting with more and ending with less important information.