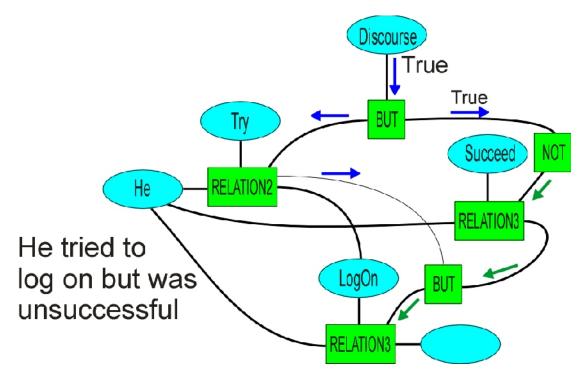
"but" allows the making of a statement, and then the negating of some possible inferences of that statement – the adversative use

We had a good meeting, but too early to say anything.

He tried to log on but was unsuccessful.



UML was not used much but a minor few particularly when trying to consolidate multiple requirements

But even more so *writing* it in the same way and writing it *fully*.

But to characterize them as a "solution" is too strong, since the information in them is quite incomplete.

"But" at the start of a sentence will need to go back and get control of the previous sentence.

The tool was just that, a tool, but it is the process that I believe was seriously at fault.

The "expertise location problem" is not a sharply defined problem that can be solved with an IT tool, but a problem that may need to be solved with a combination of activities and tools.

This is a "is not a ... but a ..." form.

We use virus scanning software but exclude all liability for viruses or similar in it.

If it's some open-minded academic he might like it but he is not going to make a decision.

The left branch sets up a probability, the right branch sets up a certainty – clearly adversative.

I think he was upset because he resigned the next day but he already had plans to go out on his own.

Upgrading means that you stay on the same level but get the latest version of it.

I've written up what we did but what was interesting was the result that showed the members were mostly promoters *but* their managers were significant detractors.

"but" can also be used to add information that does not flow from that already provided, but is not adversative.

We started slowly, developing codes of practice largely from the ground up, but later introduced a level of governance in Technology Managers.

"and" could be used in the above example, "started" and "later" providing sufficient differentiation.

I've written up what we did **but** what was interesting was the result that showed the members were mostly promoters but their managers were significant detractors.

"but also" asserts the truth of some statement, and broadens the statement beyond what would be inferentiable from it. It differs from "and" in that it conjoins what might be thought unusual.

A principal program manager attended, a guy who is responsible for various R&D initiatives but also with an eye on the market.

## How to Represent BUT

A simple approach is to make both sides true, similar to an AND, then resolve any error we get in favour of the right branch. If there is an immediate error, we insert an operator to change state.

This sees "but" as an error clearing mechanism for natural language, like try...except.

Where the statements are not adversative and cannot generate an error, it functions just like an AND.

We use virus scanning software but exclude all liability for viruses or similar in it.

One might infer that if virus software is used, the email will be free of viruses.

The exclusion of liability for viruses implies that freedom from viruses is not guaranteed.

The meaning written the other way –

We exclude all liability for viruses or similar in the email but we do use virus scanning software.

The exclusion of liability for viruses implies that nothing is done and you are on your own.

There is some attempt to reduce the number of viruses.

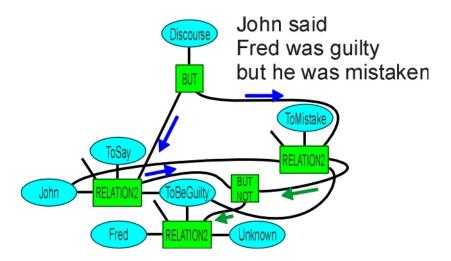
Statements where an AND wouldn't work

We had a good meeting, but too early to say anything.

UML was not used much but a minor few particularly when trying to consolidate multiple requirements

If it's some open-minded academic he might like it but he is not going to make a decision.

## **Answering Questions**



What did John say?

Fred was guilty.

What mistake did John make?

He said Fred was guilty.

Is Fred guilty?

Don't know.

Was it a mistake to say it, or was what he said a mistake?

John said Fred was guilty, but it was a mistake to say it.

What must the two structures look like?