

# Supporting Scientific Enquiry with Uncertain Sources



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## Summary

**What:** We propose a computational methodology for **assessing the impact of trust** associated to sources of information in situational understanding.

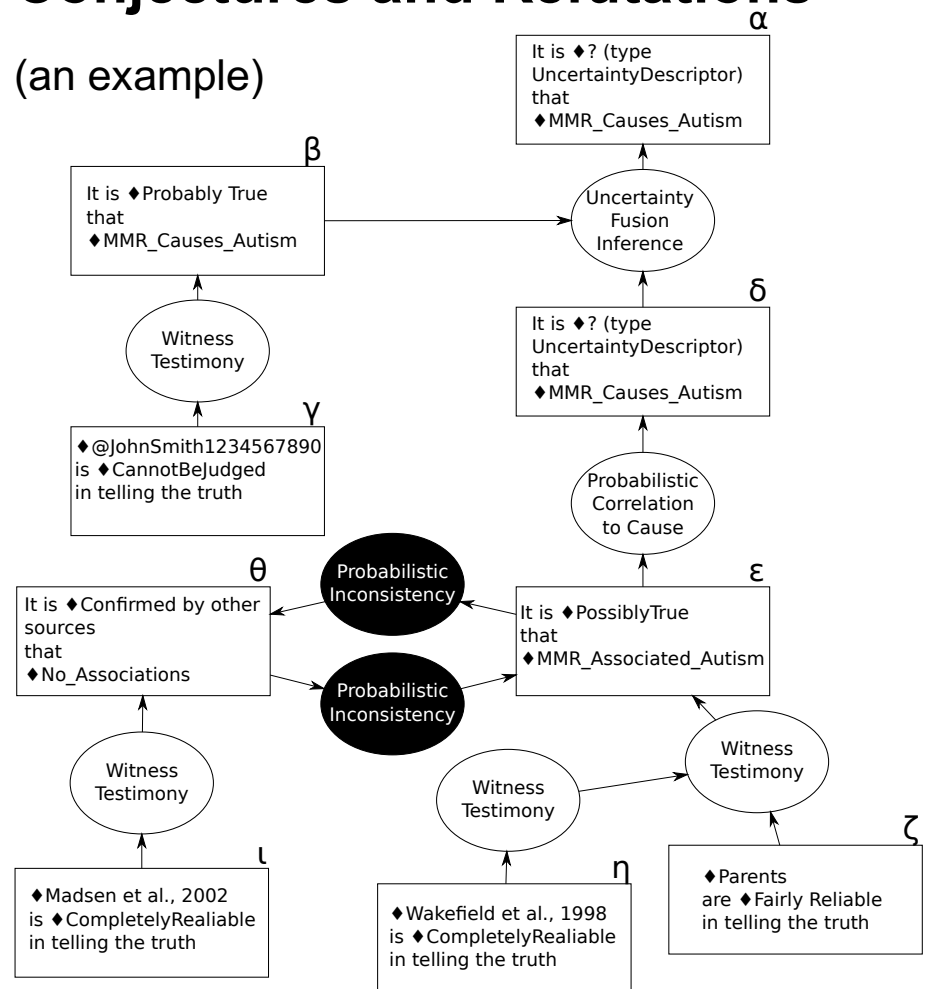
**Why:** Often trust in the source of information serves as a proxy for evaluating the quality of the information itself, especially in the cases of information overhead.

**How:**

1. An ontology for representing levels of trust and of uncertainty in the information, together with provenance of information.
2. A mapping to a machinery implementing the Popperian principle of conjecture and refutation for scientific enquiry.

## Conjectures and Refutations

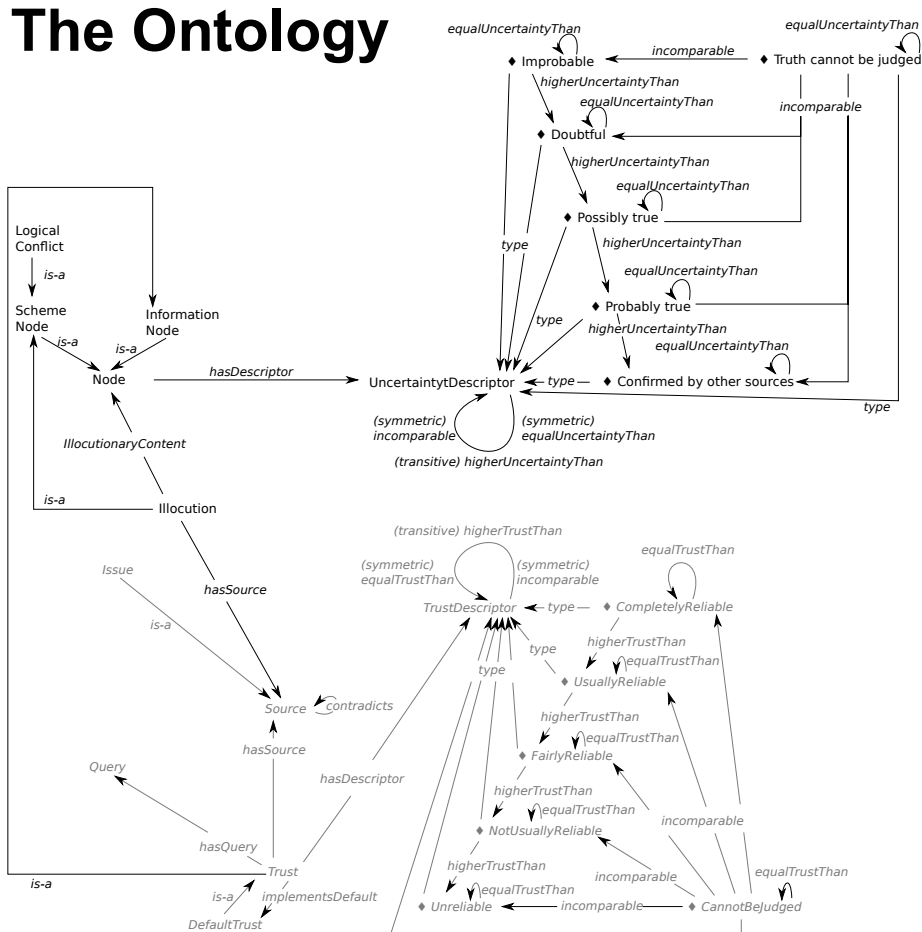
(an example)



## Future work

1. How to derive a meaningful measure of uncertainty for the arguments as a whole starting from uncertainty of various components.
2. Studying feedback loops from the final assessment of the situation to the update of trustworthiness levels.

## The Ontology



## Recording at Fusion 2018



<http://tiny.cc/qz00wy>



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