

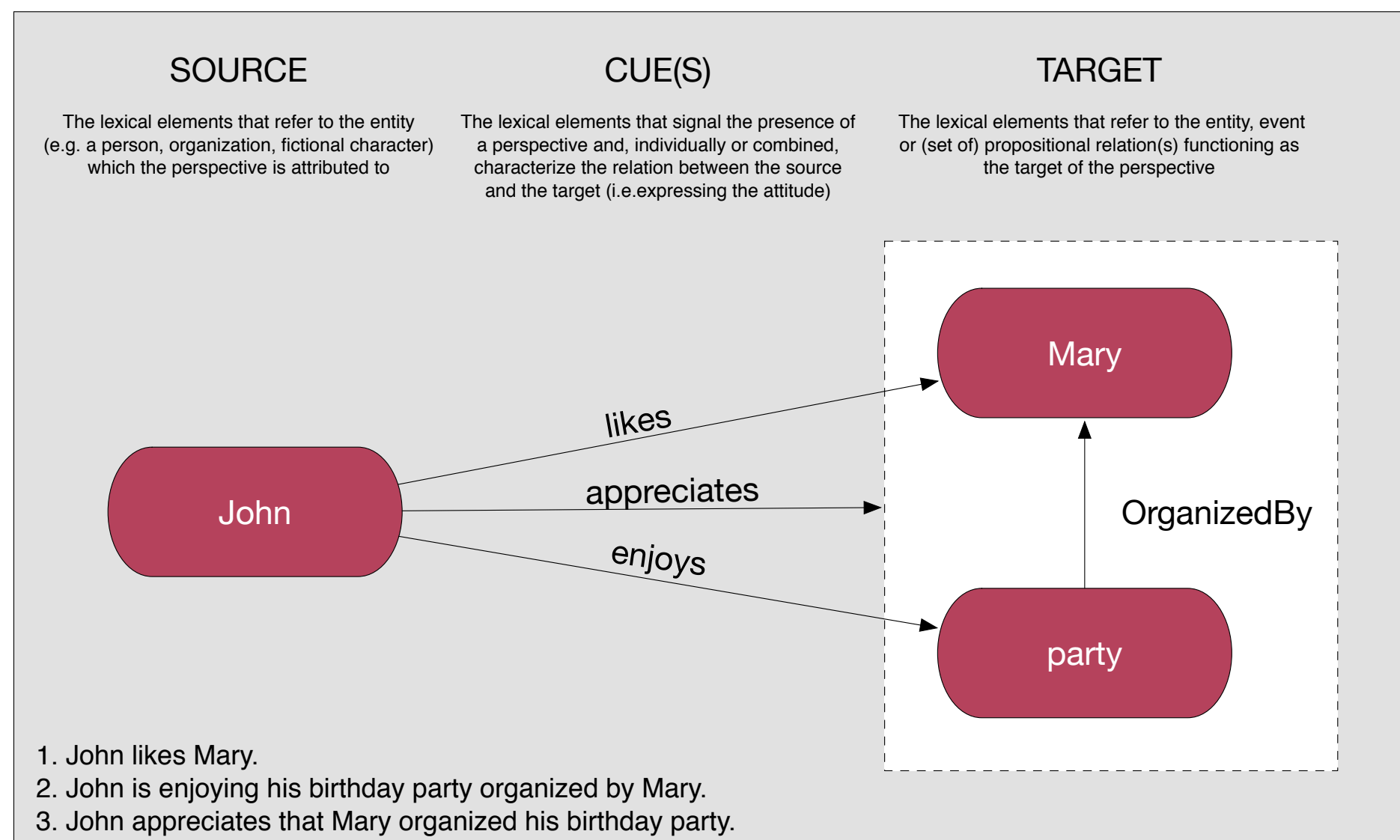
# GRaSP: A Multilayered Annotation Scheme for Perspectives

C. van Son, T. Caselli, A. Fokkens, I. Maks, R. Morante, L. Aroyo & P. Vossen

Vrije Universiteit Amsterdam

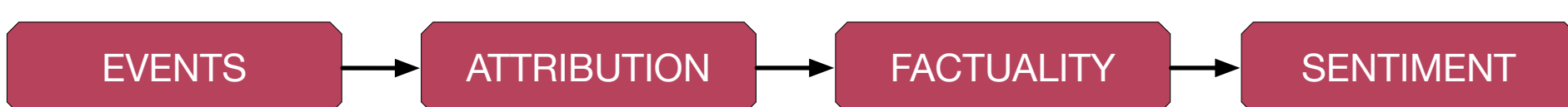
## 1. Main Elements of Perspectives

The perspective annotations are aimed at capturing the **attitude** (expressed by one or multiple **cues**) of a **source** (entity) towards some **target** (entity, event or proposition).



## 2. Multilayered Approach

We have defined separate layers for different semantic and pragmatic phenomena involved in the expression of perspectives, and these layers are annotated in a logical order:



### EXAMPLE:

{Investors and Western diplomats}<sub>ATTR-SOURCE</sub> have {said<sub>e1</sub>}<sub>ATTR-CUE</sub> {they might interpret<sub>e2</sub> Mbeki's support<sub>e3</sub> for Mugabe or the elections<sub>e4</sub> as a sign that Africa is not intent on revitalizing<sub>e5</sub> its economies through good government<sub>e6</sub> and expanded international trade<sub>e7</sub>}<sub>ATTR-TARGET</sub>.

### Factuality annotations:

Source (nested): {author, inv\_dipl}  
Target: interpret (e2)  
Attributional cue: said (e1)  
Polarity cue: NA  
Certainty cue: might  
Factuality values: POSSIBLE  
AFFIRMATIVE  
FUTURE

### Sentiment annotations:

Source (nested): {author, inv\_dipl, Mbeki}  
Targets: Mugabe, elections (e4)  
Attributional cue: support (e3)  
Indirect cue: NA  
Factual opinion cue: NA  
Sentiment values: POSITIVE

**ANNOTATION GUIDELINES:**  
[www.github.com/vua-perspectives](http://www.github.com/vua-perspectives)

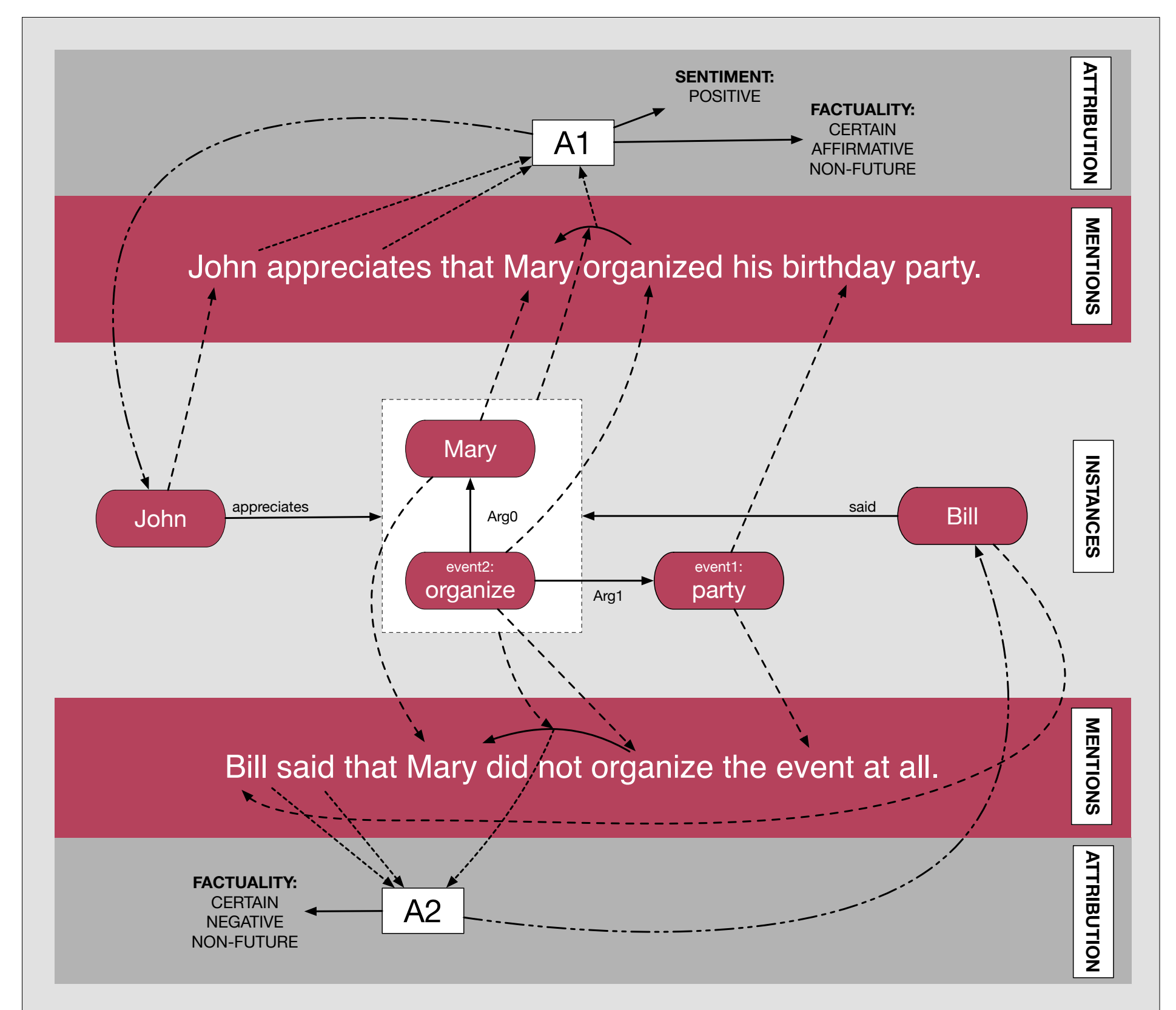
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**CONTACT:**  
c.m.van.son@vu.nl

## 3. Formal Model: GRaSP

The annotations are integrated into a formal model called GRaSP (Grounded Representation and Source Perspective), which provides the means to:

1. represent **instances** (e.g. events, entities) and **propositions** in the (real or assumed) world;
2. relate them to **mentions** in text (or pictures, symbols, audio signals, etc.) using the Grounded Annotation Framework (GAF);
3. characterize the relation between mentions of sources and targets by means of **perspective-related annotations** such as attribution, factuality and sentiment.



## 4. Perspective Scope

In some cases, only **specific propositional relations** associated with an event (or entity) are affected by a perspective cue. For instance, the default interpretation of *Harry was not killed with a knife* is that Harry was killed, but not with a knife. We call this phenomenon **perspective scope** and represent this by assigning different perspective values to propositional relations when necessary.

