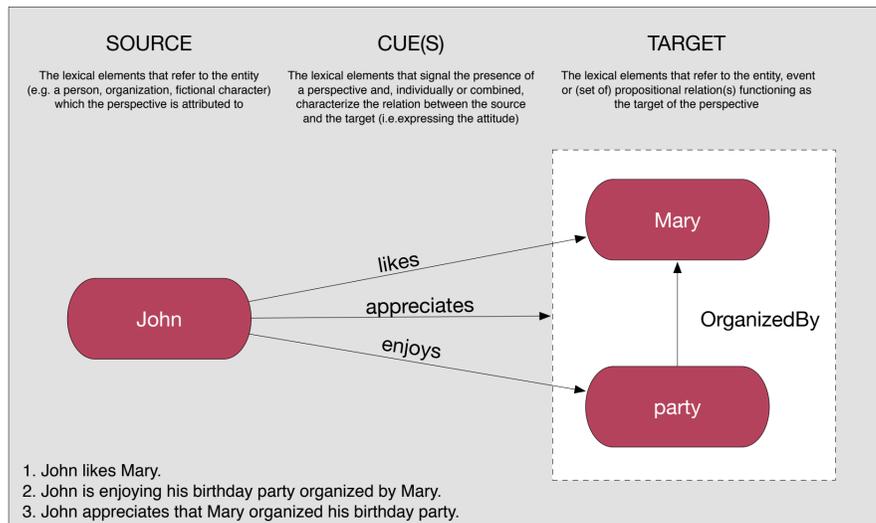# GRaSP: A Multilayered Annotation Scheme for Perspectives

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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:

EVENTS → ATTRIBUTION → FACTUALITY → SENTIMENT
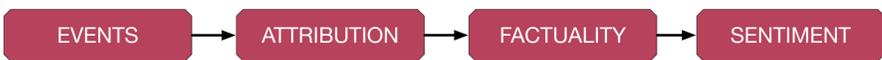
EXAMPLE:

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

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

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.
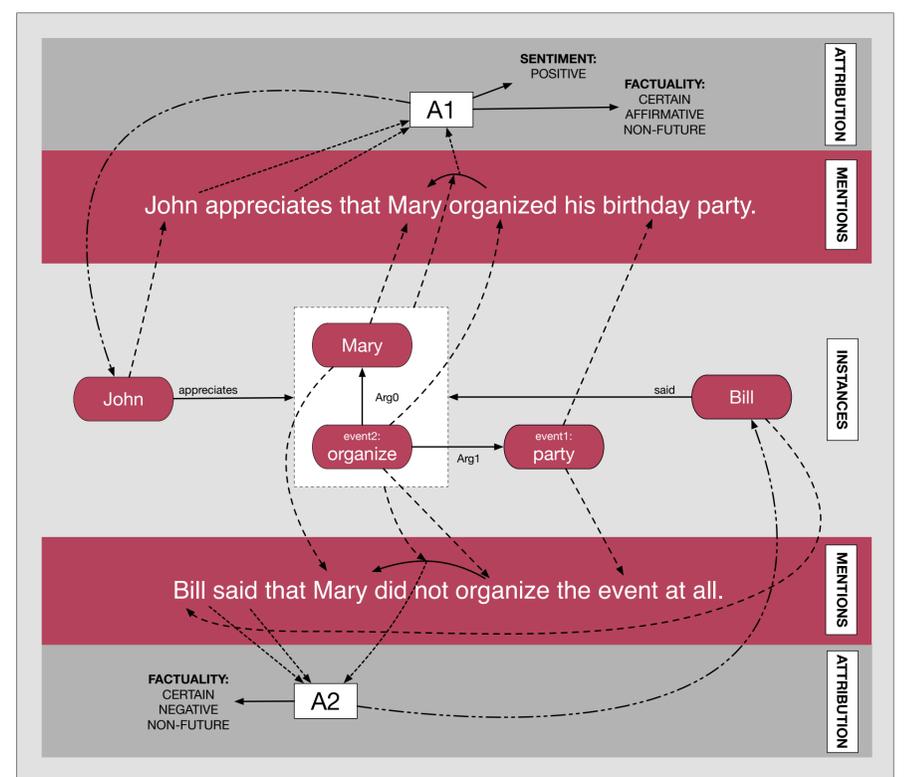
4. Perspective Scope

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.

*The World Court Friday **rejected** U.S. and British **objections** to a Libyan World Court case that has **blocked** the **trial** of two Libyans **suspected** of **blowing up** a Pan Am jumbo jet over Scotland in 1988.*