

# OVA+: an Argument Analysis Interface

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**Abstract.** This paper introduces OVA+, an on-line interface for the analysis of arguments. It is the result of an attempt to provide a tool relying on the Argument Interchange Format theory and Inference Anchoring Theory schemes.

**Keywords.** argumentation, dialogue, AIF, IAT

OVA+ (Online Visualisation of Argument) is an interface for the analysis of arguments online and is accessible from any web browser<sup>1</sup>. The tool was built as a response to the Argument Interchange Format (AIF) [1]: it is a tool allowing what the AIF has advocated for, i.e. the representation of arguments and the possibility to exchange, share and reuse the argument maps. The system relies on the *Inference Anchoring Theory* (IAT), a philosophically and linguistically grounded counterpart to the AIF [2]. The schemes provided allow for a graphical representation of the argumentative structure of a text, and more interestingly, of dialogues.

OVA+ handles texts of any type and any length. To begin the analysis, the first relevant utterance for argumentation must be extracted in order to create an information node (*I-node*) [1]. Then, it is possible to create the locution node associated (*L-node*) and to specify the name of the speaker; the locution appears, preceded by the name of the participant assigned to it, and arrows link the L-node to the I-node via a *YA-node*. YA-nodes are the illocutionary forces of locutions, and can be given a scheme provided by the IAT model [2]. Each following utterance can be annotated accordingly. According to the AIF, it is possible to represent supports or attacks between arguments. An *RA-node* (relation of inference) should connect two I-nodes. To elicit an attack between arguments, RA-nodes can be changed into *CA-nodes*, namely schemes of conflict. Linked arguments can be established by connecting all the arguments to the proper scheme-node (RA or CA). According to IAT, it is also possible to indicate the transitions (*TA-nodes*) between locutions by linking two L-nodes. Eventually, it is of interest to assign the illocutionary forces anchored in the transitions. This can be done thanks to the set of IAT schemes which are proposed when a TA-node has been linked to its corresponding scheme-node.

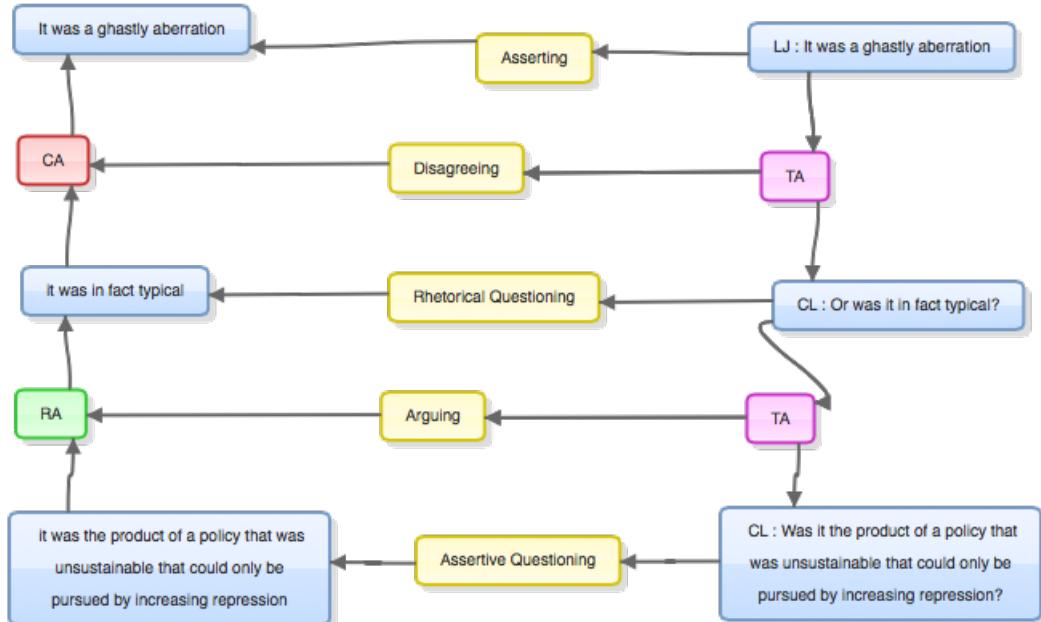
At the end of the analysis, OVA+ permits saving the work on the user's computer as an image file. But the most interesting feature is the possibility of saving the analyses in the AIF format either locally or to AIFdb [3] and add them to a dedicated corpus (created beforehand) in the AIFdb Corpora<sup>2</sup>. Thus, the analyses can be reused via AIFdb or loaded in OVA+ for consultation or correction.

As an example, Figure 1 is the OVA+ analysis of the dialogue below. This graph represents the argumentative structure of the dialogue between LJ and CL.

<sup>1</sup><http://ova.arg.dundee.ac.uk/>

<sup>2</sup><http://www.arg.dundee.ac.uk/aif-corpora/>

- (1) LJ: *It was a ghastly aberration.*
- (2) CL: *Or was it in fact typical?*
- (3) CL: *Was it the product of a policy that was unsustainable that could only be pursued by increasing repression?*



**Figure 1.** Analysis in OVA+

This OVA+ analysis clearly elicits what is not obvious at first glance. For instance, it appears that the series of questions uttered by CL actually form an argument with the rhetorical question acting as a conclusion and the assertive question being the premise. The *disagreeing* and the *arguing* moves are actually anchored in the transitions, that is, the sole linguistic surface is not sufficient to recognize these types of dynamics.

In conclusion, OVA+ has been designed with the AIF theory in mind and offers an online tool which complies with its expectations by providing schemes from the IAT framework. It would be possible, in the future, to add schemes from other models in order to further break down the barriers between the wide range of argumentation theories.

## References

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