

## GRASP: Supplemental Material - Pattern Examples

Here are a couple of patterns for the claim sentence detection task and examples of texts in which these patterns are **matched**:

[topic term][thatcomp<sup>1</sup>][sentiment]  
[singular noun]

- A common criticisms of video **games** is that they **increase** the **violent** tendencies among **youth**.  
(Topic: the sale of violent video games to minors)
- Supporters of the ban state that **boxing is** the only sport where **hurting** the other **athlete** is the goal.  
(Topic: boxing)
- Proponents argue that controlled **nuclear** proliferation **may be beneficial** for inducing **stability**.  
(Topic: nuclear weapon)

Sentences that match the pattern

[hyponym of express][that][subject]:

- Purists **argue that** any social **system** that allocates resources based on chance is one that is corrupt.  
(Topic: gambling)
- Supports **declare that multiculturalism** helps in bringing together immigrants and minorities in the country.  
(Topic: multiculturalism)
- Manley **said** on CBC Radio **that he** believed that hereditary succession was outdated.  
(Topic: monarchy)

It is not surprising that many evidence sentences of type Expert have a *Person* named entity at their beginning, and verbs which are hyponyms of *express* or *communicate*. This is reflected in the following patterns that were revealed by GRASP:

- [Person][hyponym of express]  
[topic domain lexicon]

<sup>1</sup>The meaning of *thatcomp* is the complement of the subordinate conjunction sense of *that* (this is a syntactic relation in the parse tree we used).

- [hyponym of communicate]  
[preposition][topic term][that]

For Study evidence texts, the following GRASP patterns indicate that hyponyms of *show* and *change* are a strong signal for that phenomenon:

- [hyponym of show][topic term]
- [evidence lexicon][topic term]  
[hyponym of change]

When looking for patterns that can help us recognize the exact claim boundaries within its surrounding sentence, the following pattern was found to be a *negative* indication for the phenomenon, i.e., boundaries in which it is matched are less probable to be the correct boundaries of a claim

[IN-root node][IN-topic term]  
[IN-thatcomp]

The *IN* prefix indicates that these tokens are matched inside the boundaries of the claim.