

# Comment on

## ***Graphical Manipulation of Evidence in Structured Arguments***

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## ***Graphical Display of Evidence and Inference in a Prototype System for Command-Post Information Fusion***

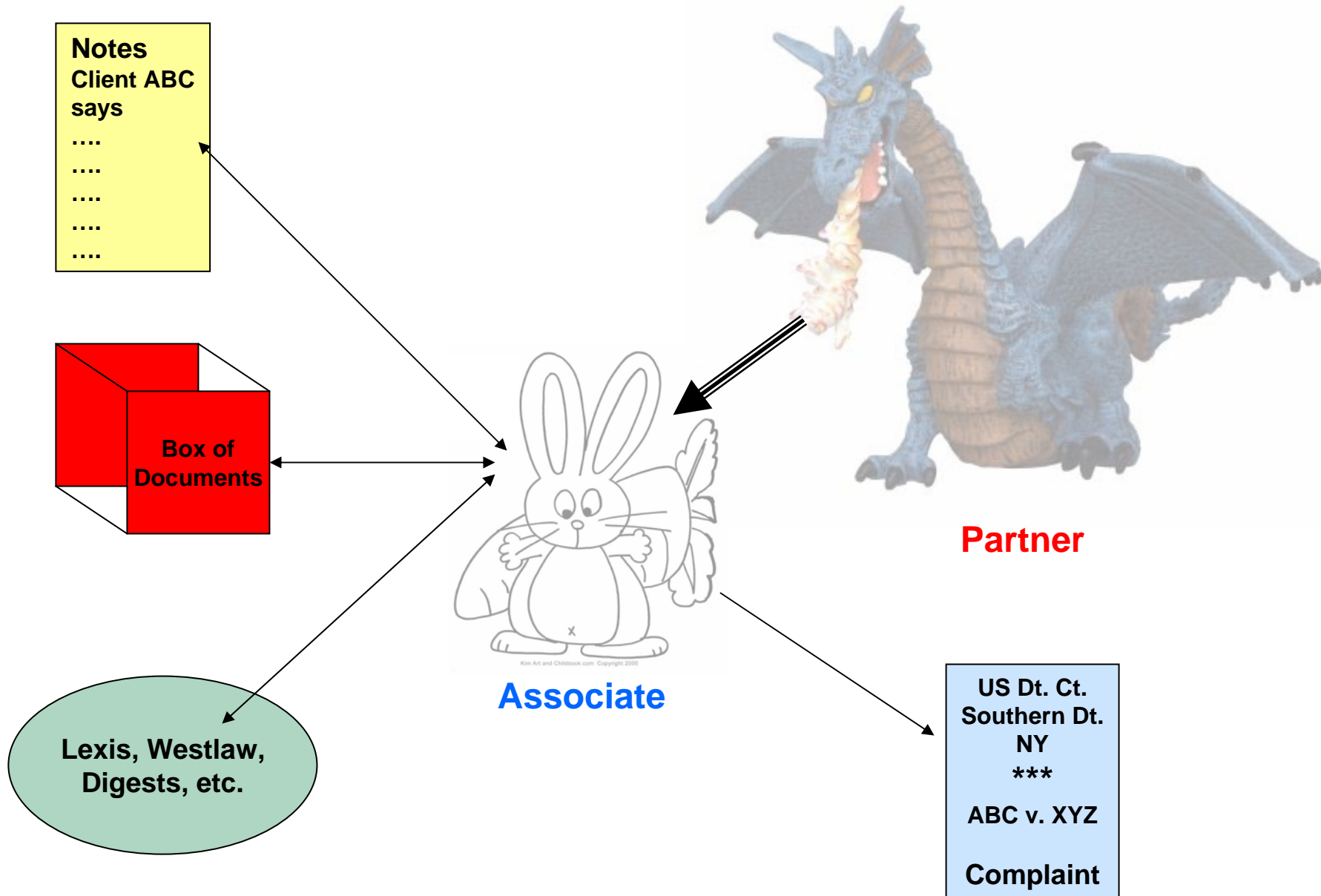
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# Once upon a time at 14 Wall St. ...

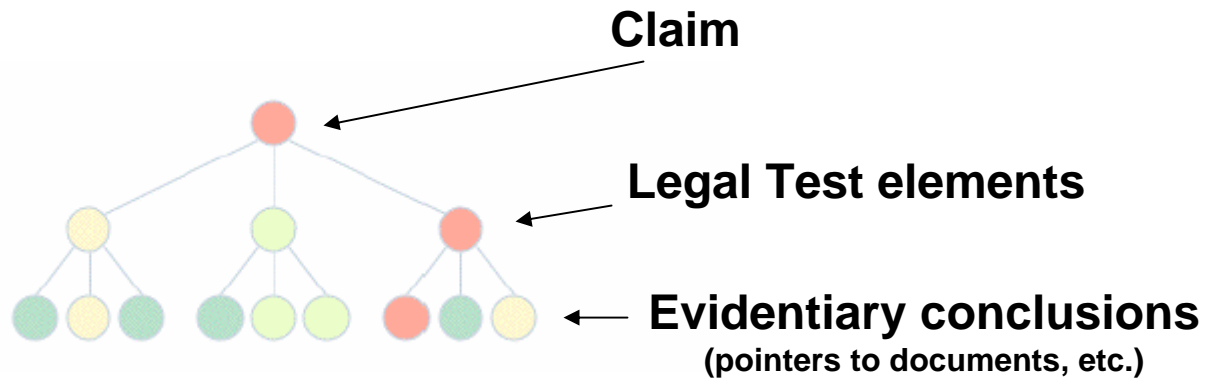


# Questions in Drafting Complaint (1<sup>st</sup> cut)

- What claims?
- What legal tests for deciding claims?
- What evidentiary conclusions needed for tests?
- What documentary support for evidence?

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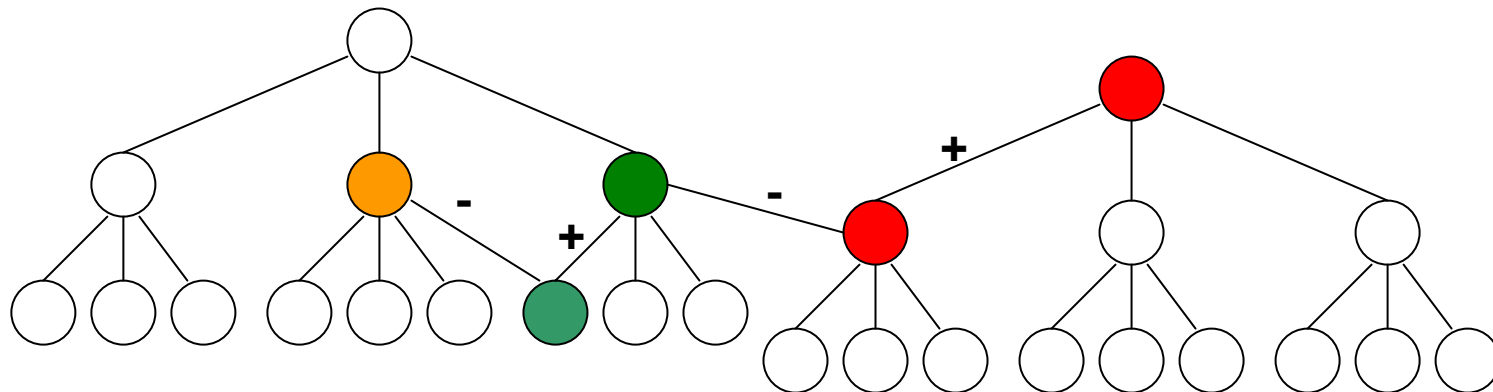
Example Structured Argument (Lowrance, 2007)

# Questions in Drafting Complaint (n<sup>th</sup> cut)

- What claims?
  - Multiple plausible theories
  - Different “stories” and underlying policies
- What legal tests for deciding claims?
  - Multiple alternative versions of tests (i.e., hypotheses)
    - o majority v. minority rules
    - o different rules in different jurisdictions
    - o unstated conditions (not: unconstitutional, preempted, contra basic principles)
- What evidentiary conclusions needed for tests?
  - What relations among multiple pieces of evidence, tests, and claims?
  - Which relations compete with or undercut each other?
  - Which evidence strengthens one claim (test, conclusion, etc.) but weakens another?
- What documents support evidence?

# What kind of argument tools / pictures?

- Multiple trees corresponding to claims, tests, versions of tests?
- Graphs, not trees?
- Show positive/negative influences across and within claims?
  - Including both legal support and effect on story plausibility?
- Make inference and fusion methods explicit?
- Pose and assess alternative hypotheses?
- Support visualizing effect of changes in plausibility of some theories and hypotheses over others?



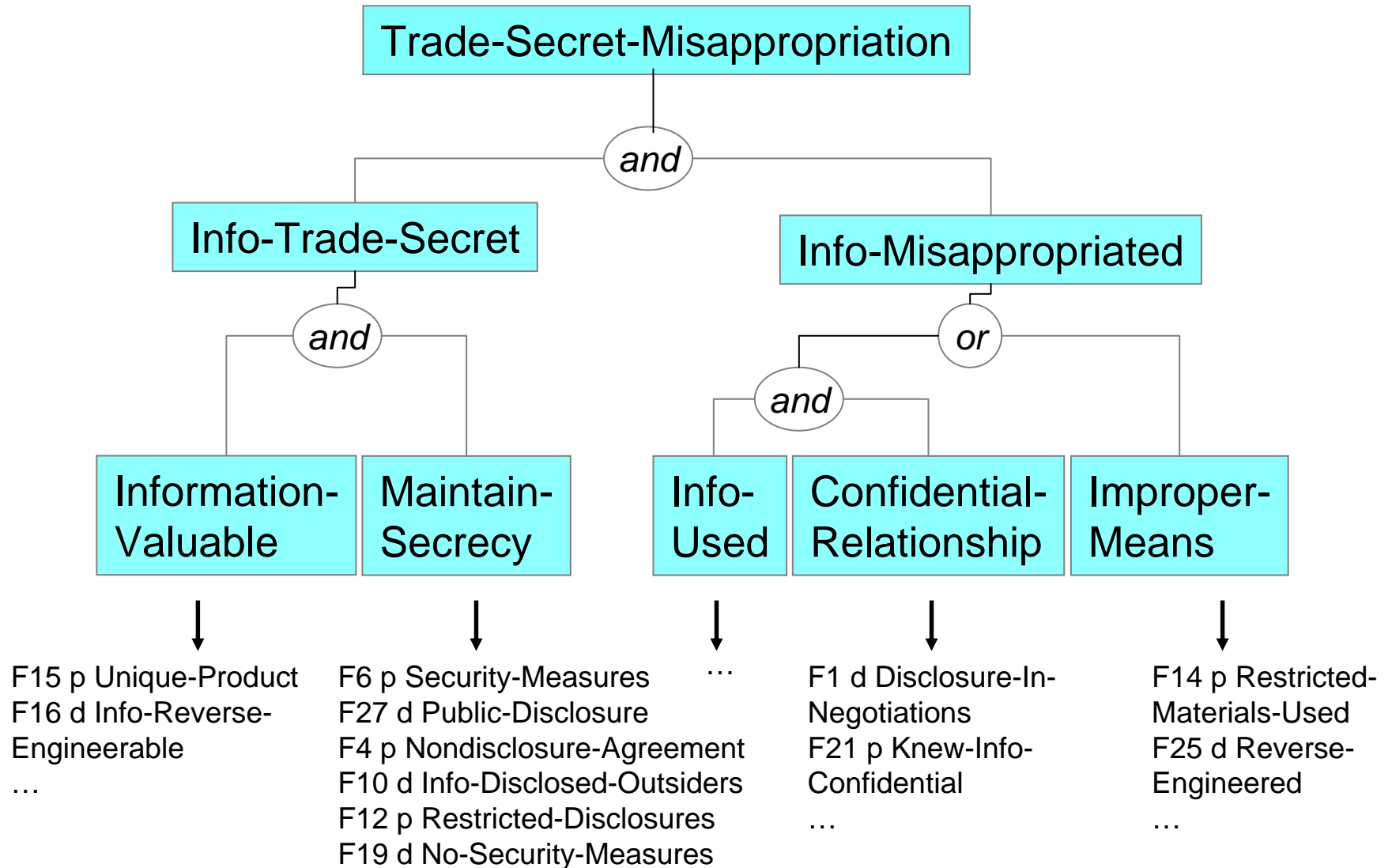
# Some argument tools for visualizing legal inferences

- Graph with positive/negative influences
  - CATO's Factor Hierarchy.
- Pose and assess alternative hypotheses
  - IBP's Domain Model and explaining away counterexamples to hypotheses about which side should win particular issues.
  - Using LARGO to study SCOTUS oral arguments
    - How advocates propose alternative tests (i.e., hypotheses)
    - How Justices probe the tests with hypotheticals
    - How advocates respond to hypotheticals by
      - distinguishing hypothetical
      - modifying test



# IBP Domain Model

(Brüninghaus & Ashley ICAIL-03)



# Student's Graphical Argument Representation with LARGO

start.xml - LARGO 1.0

Datei

Transcript

Search:  next

Hall is approximately 100 feet away from this area.

140. Also, the creche and the display itself is -- there is a ceremony that is held by the mayor of the city of Pawtucket each year, a lighting ceremony, which announces the commencement of the display in the Hodgson Park area. The music that is played at the display is the same music that is also played inside of City Hall, and all of the festivities that take place at the display and at City Hall are paid for and sponsored by the city of Pawtucket.

141. QUESTION: Well, Mr. DeLuca, you say that although the property, the real property, I take it, on which the creche is located is private, it is only -- it adjacent to city property. Now, if the city did not own the creche itself, so that everything that was contributed to the display, including the creche, were privately owned, it wouldn't violate the First Amendment, the fact that it was right next door to the City Hall, would it?

142. MR. DE LUCA: Well, I think that in the -- I think that in understanding that the city owns all of [\*23] the symbols and all of the artifacts that are contained in this display, and assuming that that -- the creche were purchased and paid for privately without any other explanation that it is private, then I think it would still violate the establishment clause for the First Amendment, because there is no indication to anyone

**ADVICE**

Elements

Hypothetical:

Test: IF  THEN

Facts:

Relations

- modified to
- distinguished from
- analogized to
- leads to
- general relation

**Test**  
IF city purchases, maintains, erects symbology  
AND symbol is universally recognized religious symbol and belief  
THEN violates First Amendment

**Hypothetical**  
City doesn't own creche

**Facts**

**Hypothetical**  
The Ten Commandments displayed in the courtroom

**Test**  
pity purchases, maintains, erects symbology  
IF or public cannot distinguish religious elements from the secular ones, regardless of whether city purchases the alleged infringing elements  
THEN violates First Amendment

**Hypothetical**  
Would displaying religious paintings/artifacts in a public museum be unconstitutional?

**Test**  
government supports religious symbology,  
IF or such symbology is seen as supported by the government to the public  
AND that symbology has no secular purpose, in light of its use and factual context  
THEN violates First Amendment

**Hypothetical**  
would a large mass, regulated by the city, be unconstitutional if held on public property?

comment: (multiple)

distinguished by virtue of (multiple)

leads to (multiple)

1, 2, 3, 4, 5, 6

# Conclusions

Realistic graphic representation of evidence and inference in setting of drafting a complaint requires:

- Multiple trees corresponding to multiple claims, tests, versions of tests.
- Graphs, not trees, to show influences on multiple issues.
- Indication of positive/negative influences across and within claims.
  - Including both legal support and effect on story plausibility.
- Explicit indication of inference and fusion methods.
- Support for posing and assessing alternative hypotheses.
- Support for visualizing effect of changes in plausibility of some theories and hypotheses over others.