

# Rhetorical Structure Theory, RST (retorisen rakenteen teoria)

- Mann & Thompson 1988 (in Finnish, e.g. Komppa 2013)
- Main assumption: Each part of a coherent carefully written text has its significance for the entirety.
- RST describes the **relations** between text parts.
- These relations are defined to hold between two non-overlapping text spans, a ***nucleus*** and a ***satellite***.
- Typically, a **clause** is considered such a "text span".

## Circumstance (olosuhde)

Probably the most extreme case of Visitors' Fever  
I have ever witnessed was a few summers ago...      ...when I visited relatives in the Midwest.



*The effect:* The situation presented in S provides the framework for interpreting N.

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### Subject-matter relations

#### Circumstance

Condition

Elaboration

Evaluation

Interpretation

Means

Non-volitional Cause

Non-volitional Result

Otherwise

Purpose

Solutionhood

Unconditional

Unless

Volitional Cause

Volitional Result

### Presentational relations

Antithesis

Background

Concession

Enablement

Evidence

Justify

Motivation

Preparation

Restatement

Summary

### Multinuclear relations

Contrast

Joint

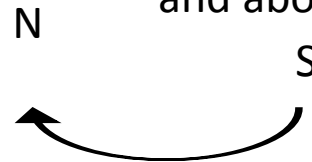
List

Restatement

Sequence

## Non-Volitional Result (ei-tahdonalainen seuraus)

The blast destroyed the plant and most of the surrounding suburbs. Several thousand people were injured, and about 300 are still in hospital.



*The effect:* The situation presented in N could have caused the situation presented in S.

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### Subject-matter relations

Circumstance  
Condition  
Elaboration  
Evaluation  
Interpretation  
Means  
Non-volitional Cause  
**Non-volitional Result**  
Otherwise  
Purpose

Solutionhood  
Unconditional  
Unless  
Volitional Cause  
Volitional Result

### Presentational relations

Antithesis  
Background  
Concession  
Enablement  
Evidence  
Justify  
Motivation  
Preparation  
Restatement  
Summary

### Multinuclear relations

Contrast  
Joint  
List  
Restatement  
Sequence

## Concession (myönnyty)

Although it is toxic  
to certain animals, ... ... evidence is lacking that it has any serious  
long-term effect on human beings.



*The effect:* Readers positive regard for the situation presented in N is increased by S.

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### Subject-matter relations

Circumstance	Solutionhood
Condition	Unconditional
Elaboration	Unless
Evaluation	Volitional Cause
Interpretation	Volitional Result
Means	
Non-volitional Cause	
Non-volitional Result	
Otherwise	
Purpose	

### Presentational relations

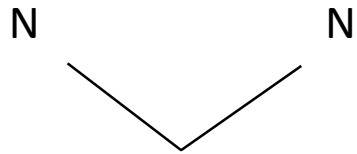
Antithesis ( <i>increases positive regard</i> )
Background ( <i>increases ability</i> )
<b>Concession</b> ( <i>increases positive regard</i> )
Enablement ( <i>increases ability</i> )
Evidence ( <i>increases belief</i> )
Justify ( <i>increases acceptance</i> )
Motivation ( <i>increases desire</i> )
Preparation
Restatement
Summary

### Multinuclear relations

Contrast
Joint
List
Restatement
Sequence

## Contrast (kontrasti)

Animals heal, ... ... but trees compartmentalize ('jakaasiin').



*The effect:* Readers recognize the comparability and the difference.

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### Subject-matter relations

Circumstance  
Condition  
Elaboration  
Evaluation  
Interpretation  
Means  
Non-volitional Cause  
Non-volitional Result  
Otherwise  
Purpose

Solutionhood  
Unconditional  
Unless  
Volitional Cause  
Volitional Result

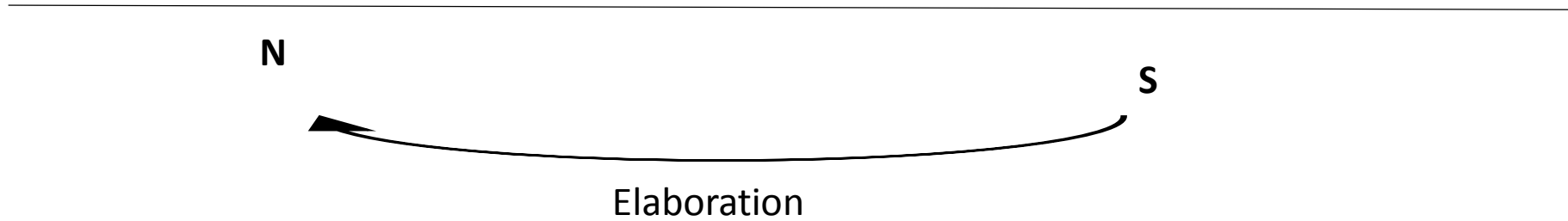
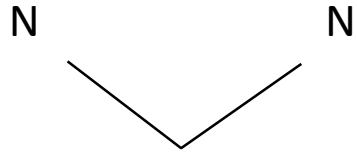
### Presentational relations

Antithesis  
Background  
Concession  
Enablement  
Evidence  
Justify  
Motivation  
Preparation  
Restatement  
Summary

### Multinuclear relations

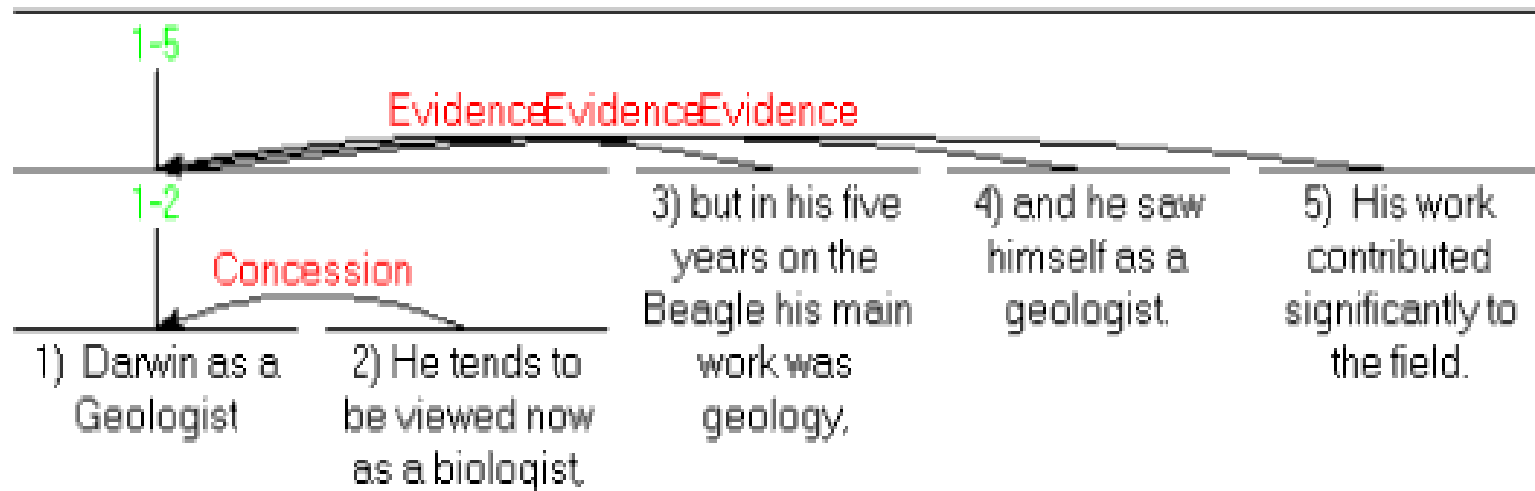
**Contrast**  
Joint  
List  
Restatement  
Sequence

Animals heal, ... ... but trees compartmentalize ('jakaasiin'). They endure a lifetime of injury and infection by setting boundaries that resist the spread of the invading micro-organisms.

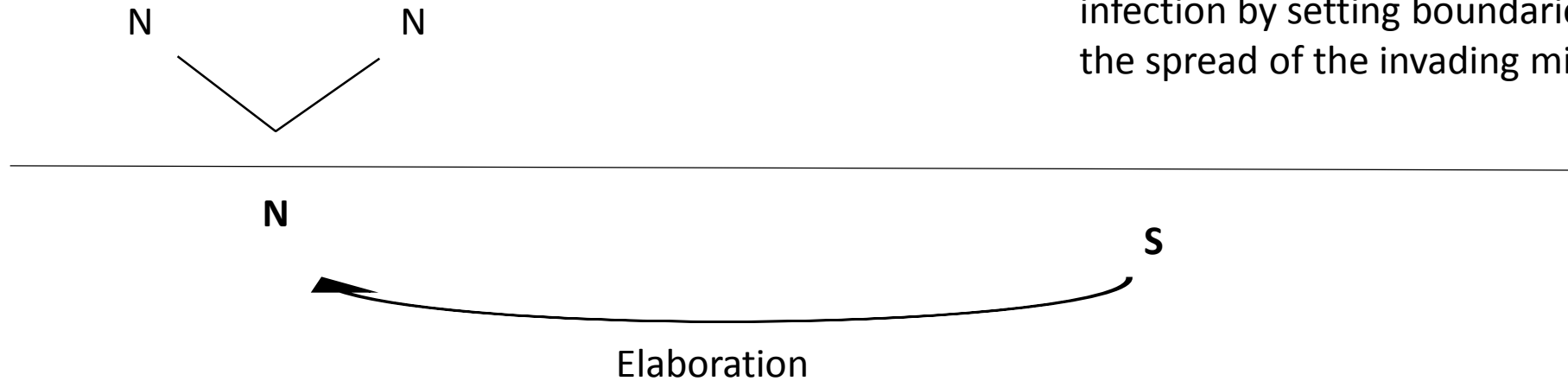


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- Analysis proceeds hierarchically from smaller units (= clauses) to larger structures (adjacent sentences, paragraphs and so on).

- 1) Darwin as a Geologist [heading]
- 2) He tends to be viewed now as a biologist,
- 3) but in his five years on the Beagle his main work was geology,
- 4) and he saw himself as a geologist.
- 5) His work contributed significantly to the field.



Animals heal, ... ... but trees compartmentalize ('jakaa osiin'). They endure a lifetime of injury and infection by setting boundaries that resist the spread of the invading micro-organisms.



Recognition of the relation always rests on functional and semantic judgements alone, **not on morphological or syntactic signals.**

This could be seen both as

- **cons (for text analysis):** No direct access to either the writer or the readers. Therefore, descriptions cannot be certain but *plausibility judgements*. Prone to differing interpretations.
- **pros (for NLG):** These relations are language independent!



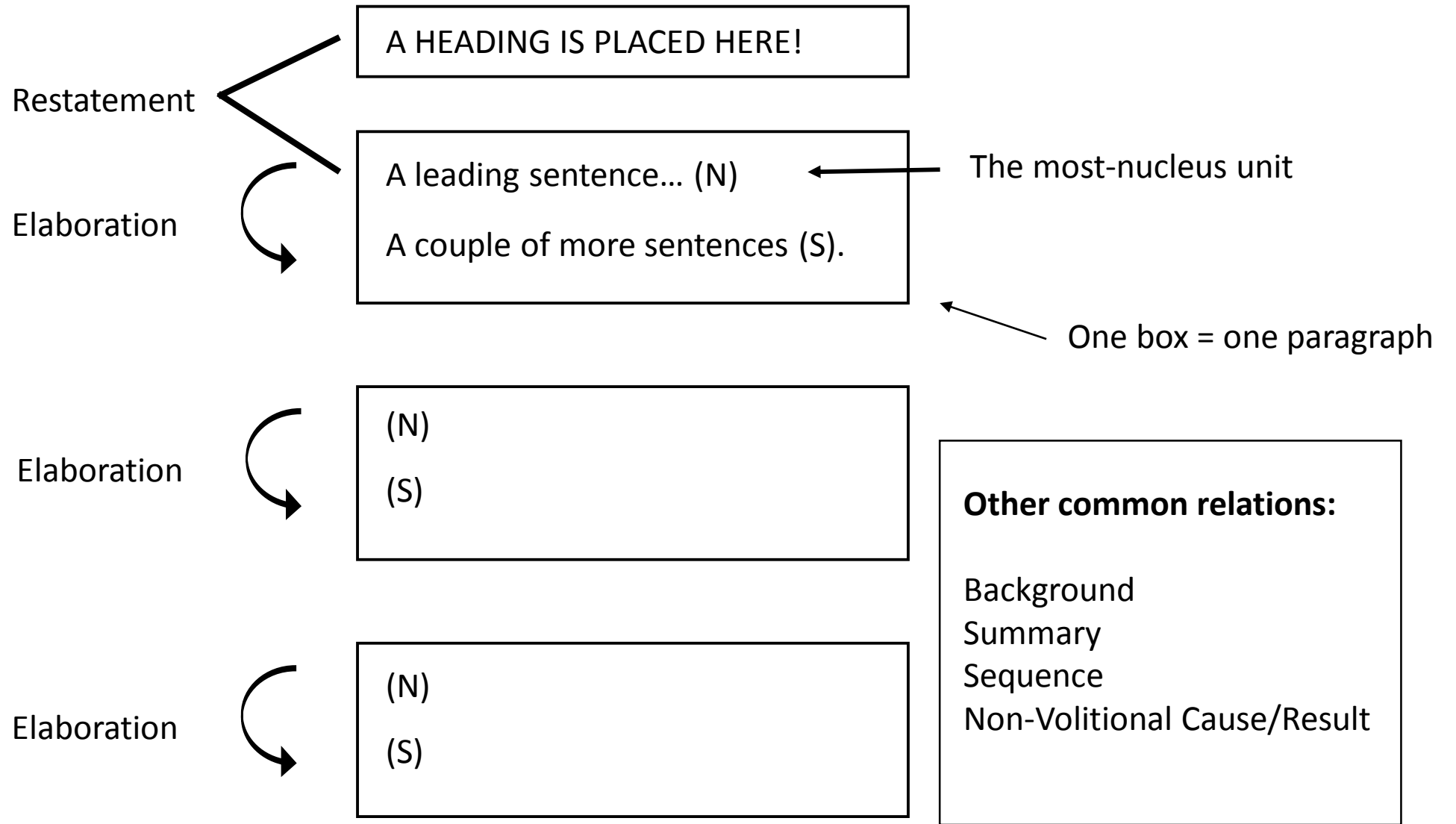
# News automation

- Human and machine → a “man-machine marriage.”
- Journalists perform tasks that algorithms cannot, such as in-depth analysis, interviewing, and investigative reporting.
- So, what algorithms can?

(Graeffe 2016)

In news automation, it makes sense to focus on a short news article form (2–4 paragraphs, “sähkeuutinen”) with one essential newsworthy fact (uutiskärki).

→ I collected small corpus of such articles.



Restatement

Elaboration

A HEADING IS PLACED HERE!

A leading sentence... (N)

A couple of more sentences (S).

The most-nucleus unit

## Elaboration

Nucleus is often an assertion, followed by a Satellite.

The relations is based on **content** BUT is often also marked by **conventional means of cohesion**:

- Pronouns (Party X → It)
- Repetition
- Nominalization (Party X has won → The win...)
- Restrictive relative-clause
- Sentences placed within a paragraph

Komppa 2013

(N)

(S)

(N)

(S)

## Other common relations:

Background

Summary

Sequence

Non-Volitional Cause/Result

As far as automated news production is focusing on a simple and succinct news format, the RST won't offer any breakthrough. However, once we are ready for more complex format, the theory help us clarify the structure and keep it abstract enough for language independency.

