COHERENCE AND COHESION
RELATIONS

Connexion and Framing

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Coherence: a very general principle of interpretation of language in context

Linguists tend to focus on cohesion markers
At the level of discourse

«cohesion is no more structural, it is external, marked by « lexico-grammatical items»» (Halliday & Hasan 1976)
Halliday & Hasan's (1976) taxonomy of cohesive devices:
“reference, substitution, ellipsis, conjunction and lexical cohesion”,

further refined by Martin (1992).
Taxonomies of coherence relations in formal semantics and computational linguistics studies:
- Hobbs (1990)
- Mann & Thompson (1987, 1988) : *Rhetorical Structure Theory (RST)*
Intensive debate: T. Sanders, L. Degand, ....

But a broad consensus on distinguishing between two types of relations:

**Referential relations**: anaphora

**Semantic/pragmatic relations**: connectives
"The various devices for linking adjacent sentences in a discourse can be reduced to two types of link: the one is referential links (...) The other type of cohesive link is a semantic link between the proposition expressed by the two sentences (...) Any of these two types of link is sufficient to produce a cohesive discourse, and it is necessary that at least one of them will hold (...)" (Reinhart 1981)

“Generally speaking, there are two respects in which texts can cohere:

**Referential coherence**: units are connected by repeated reference to the same object;

**Relational coherence**: text segments are connected by establishing coherence relations like Cause-consequence between them.” — Sanders & Spooren (2001: 7)
Paul a triché. Il a extorqué 30 € à Robert.
Paul cheated. He robbed 30 € to Bob
Two eventualities: activity + achievement

Sem-Prag relation (« rhetorical »)

Volitional result

Referential relations
Paul a triché de sorte qu’il a escroqué Robert de 30 €.
Paul cheated so that he robbed 30 € to Bob

Syntactic integration + relational marker

Sem-Prag Relation
Volitional result 1-2

[ [Paul, a triché]_{t1} de sorte qu’[il, a extorqué 30 € à Robert]_{t2} ]

Referential relations
COHESION

Word

Phrase/Clause/Sentence

Integration

Discourse

Fusion

Semantic/pragmatic Relations

Connectives

Anaphora
SUGGESTION 1:

Anaphora and connectives: two forms of a unique general type of cohesion relation - Connexion Relation

Prototypically: Backward-looking ties (Halliday & Hasan 1976, Berrendonner 1983)
Referential relations

In French, «backwards» anaphora (cataphora) are less frequent than normal anaphora and limited to specific forms (possesive NPs, demonstrative pronouns «ceci», certain adverbs) or constructions (pronominals in preposed subordinate sentences, left dislocations in spoken language)
Semantic and Pragmatic Relations:

In RST, even when the arrow goes from left to right as in

Paul a triché

Il a extorqué 30 € à Robert

Referential relations
The interpretation process requires to take into account the preceding adjacent unit:

\[ U_1 \rightarrow U_2 \]

(de sorte que) If « volitional result » U2 = N, U1 = S : Forward R
(car) If « evidence » U1 = N, U2 = S : Backward R
(mais) If « antithesis » U2 = N, U1 = S : Forward R
(pourtant) If « contrast » U1 = N, U2 = N : Back+Forward R

See also: Veltman’s update semantic theory – cf. C. Rossari
SUGGESTION 2:

There also exists another type of cohesion markers which function in the opposite direction. These markers signal “forward-labelling”: Indexing or Framing Relations.
Framing relations are supported

- by Adverbials (PP, Adv, SN, Subordinate Sentences) i.e.: adjuncts, parentheticals

- when they are in initial position or in the preverbal area

Framing relations are a sort of scope relations
Hier, Paul a triché. Il a extorqué 30 € à Robert.
Yesterday, Paul cheated. He robbed 30 € to Bob
Two eventualities: activity + achievement

Yesterday, Framing Relation

Semantic/Pragmatic Relation

Volitional result 1-2

[Paul, a triché]_{t1} [Il, a extorqué 30 € à Robert]_{t2}

Referential relations
Connexion and Framing Relations
From a logical point of view

- Anaphora and connectives are **functors**
  \[ F(x,y) \]

- Indexing adverbials are **conditional relators**:
  - «if one considers the «dimension» x, then S1 , S2, …»

\[
X \quad \text{S1} \wedge \text{S2} \wedge \text{S3}
\]

The informations conveyed by S1, S2, S3 … are equivalent with respect to the index or label put forward by X

(«modal subordination» in SDRT : Craige Roberts 1989)
« En France, [on dénombre, chaque année, une cinquantaine de cas mortels] (S1) mais [on n’a pas de recensement officiel de la maladie (S2), [parce que les médecins ne sont pas tenus de la déclarer aux services de santé]] (S3). » (La Recherche)

In France

- S1
- S2
- S3

S1 but S2 because S3
Sentences indexed by the same adverbial constitute a block (a «frame»), they belong to the same semantic file labeled by the adverbial
Pauline, une adolescente, est confiée à sa cousine Marion le temps de quelques jours de vacances d'été (S1). [Sur la plage (PP1), Marion rencontre Pierre, un ancien soupirant (S2). Il lui présente Henri (S3), qui invite tout le monde à manger puis à danser (S4)]. [Au casino (PP2), Pierre fait une déclaration brûlante à Marion (S5), qui le repousse (S6) pour se jeter dans les bras d'Henri (S7)...." (TV magazine, summary of the film: Pauline à la plage)

- PP1 ("on the beach") introduces a Spatial Frame Sp 1 covering the propositional content of S2, S3 and S4
- PP2 ("in the casino") introduces a Spatial Frame Sp2 covering the propositional content of S5, S6 and SP7
- opening of Sp2 ➔ closing of Sp1
- S3 and S4 refer to eventualities which take place "on the beach" (this inference would no longer be obligatory if the PP were in final position in S2)
COHESION

Word
  Fusion

Phrase-Clause/Sentence
  Integration

Discourse
  Connexion
    Connectives
    Anaphora

Indexing
Many linguistic studies on adverbials in functionalist discourse analysis:

For ex. S. Thompson (1985) on infinitive purpose clauses

«Initial and final purpose clauses in English are doing radically different jobs» (p. 57)
«the role of the final purpose clause can be seen to be a much more local one ... it serves simply to state the purpose for which the action named in the preceding clause is/was undertaken. The scope, then, of a final purpose clause is restricted to its immediately preceding main clause." (p 67)

Initial purpose clauses:
- are thematical or topical (i.e. they are «anchored» in the preceding context)
- can include several sentences in their scope

For a general discussion on adverbials as topics, cf. Charolles & Prévost eds. (2003)
Preposed adverbials

- are not always anchored in the preceding contexts: contrary to connectives they can occur in text initial position

- Even when they are anchored in the preceding context, they introduce a disconnexion with it, they are segmentation markers (cf. psycholinguistical evidence for this hypothesis)
The capacity of adverbials to index a series of following sentences

- is not well documented in functionalist studies

- raises many questions
Which types of adverbials can assume a framing function?

- temporal and spatial («scene settings») adverbials: during the war, in England, ...

- praxeologic adverbials: in linguistics, in English, in judo, ... («abstract localisation»)

- «representational space builders» : In «Romeo and Juliet», ... (cf. Fauconnier 1984)
- «Mediative/Evidential» adverbials: *according to X*

- «Topicalizing» (contrastive) adverbials: *regarding/for X, Pro_X*

- «Organizing adverbials»: *on one hand ... on the other hand ...*

- Other dimensions of content can be used for indexing:
  - purpose (*in order to X*)
  - manner (*with X, gerundive sentences*),
  - ...
How to distinguish these adverbials

- from predicative detached adjective groups (*Tired, he ...*), absolutive constructions (*Le chapeau sur la tête, ...*): cf. Combettes

- from left dislocation constructions in spoken French with a pronominal anaphor (*Paul, il ...*) or without (*Le métro, je déteste*): cf. S.Prévost
Another question:

Since connectives and framing adverbials function in opposite directions how to explain:

- that many connectives are former adverbs,

- that many adverbs can be used either as sentencial adverbs, connective adverbials, and framing adverbials (text organizers)
<table>
<thead>
<tr>
<th>French</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mais</td>
<td>But</td>
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<tr>
<td>Seulement</td>
<td>Only</td>
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<tr>
<td>Simplement</td>
<td>Simply</td>
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<tr>
<td>Malheureusement</td>
<td>Unfortunatly</td>
</tr>
<tr>
<td>Heureusement</td>
<td>Fortunatly</td>
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<tr>
<td>Personnellement</td>
<td>Personnaly</td>
</tr>
<tr>
<td>Selon X</td>
<td>According to x</td>
</tr>
</tbody>
</table>

- +Connective ← - Connective
- - framing ← → + framing
Diachronic studies (B. Combettes 2003)


Grammaticalization
Which expressions can signal that a frame previously opened must be closed?

→ Corpus studies on frames introduced by:

- *En + N (activity)*: *en linguistique* (*In linguistics*)
- *Selon + SN*: *According to X*
- Temporal SN: *un jour* (*one day*)
• Could we hypothesize that, when a frame has been opened, it tends to extend its scope to the following sentences unless a cue signals that the frame must be closed?

• One could also consider the opposite hypothesis: the scope of framing adverbials is limited to their guest sentence, it only extends to the following sentences if these are linked to the preceding one by a particular relation?

• Is it possible to signal that the scope of a potentially framing adverbial includes several incoming sentences?

Cf. A. Lacheret
We need psycholinguistic experiments to test these final points