

CAUSAL RELATIONS BETWEEN DISCOURSE AND GRAMMAR

Liesbeth Degand

University of Louvain, Belgium

Institute for Language & Communication

liesbeth.degand@uclouvain.be

An old and/or long love story

- A situation-based approach to causation with some implications for text generation (1997) → *Form and Function of Causation. A theoretical and empirical investigation of causal constructions in Dutch* (2001)

- Causal connectives or causal prepositions? Discursive constraints (2000)

Causal connectives in writing (Dutch)

- Scaling causal relations and connectives in terms of Speaker Involvement (2001)

Causal connectives in speech (French)

- Connecteurs de causalité, implication du locuteur et profils prosodiques. Le cas de *car* et de *parce que* (2007)

Causal connectives in diachrony (Dutch & French)

- Historical and comparative perspectives on subjectification: A corpus-based analysis of Dutch and French causal connectives (2011)
- Competing connectives in the causal domain. French *car* and *parce que* (2012)

Discourse markers and spoken discourse structure

- On identifying basic discourse units in speech: theoretical and empirical issues (2009)
- Discourse markers as turn-transition devices in speech and instant messaging (2016)

A LITTLE DETOUR ...

Spoken Discourse Segmentation

- “The stepwise structure of speech can give us many clues about cognitive processes. It suggests units for planning, production, perception and comprehension.” (Holsánová 2008: 1)

Spoken Discourse Segmentation

- Basic Discourse Units segmentation model accounts for
 - Discourse as **product**: structured and organized object in terms of coherence and discourse relations between states and events → coherence relations approach (cf. Grosz & Sidner 1986; Mann & Thompson 1988; Polanyi 1988; Roulet et al. 2001; Sanders, Spooren & Noordman 1992)
 - Discourse as **process**: temporal event that is dynamic, transitional, subject to linearization and interactional achievement; i.e. transitory, irreversible, synchronized cf. discourse **flow** (of thoughts/ideas and of sounds/forms), (cf. Chafe 1994; Couper-Kuhlen 2012 ; Auer 2009)

Linguistic correlates of discourse segmentation

- Both syntax and prosody provide linguistic cues that may be used to segment the discourse flow into delineated units
 - Discourse as product → priority to syntax (Carlson, Marcu & Okurowki 2001, Givón 1983, Monschau, Kreyer and Mukherjee 2003)
 - Discourse as process → priority to prosody (Altenberg 1987, Chafe 1994, Swerts and Geluykens 1994)
- Not a strict divide! (Helasvuo 2001, Pawley and Syder 2000, Thompson and Couper-Kuhlen 2005)

Basic Discourse Units model

- Syntax and prosody are two distinct, yet interdependent and complementary levels of surface segmentation, that work together to give rise to a specific discourse organizational level (Degand & Simon 2009; in prep.)
- A basic discourse unit (BDU) emerges whenever a syntactic boundary coincides with a prosodic boundary. As long as the two levels do not coincide, the hearer awaits completion. More precisely, prosodic and syntactic structures do not always align in a one-to-one relation (see also Chafe 1994; Croft 1995, Ford & Thompson 1996)

Segmentation into Basic Discourse Units

- Mapping of two **independently** performed levels of analysis generates specific discourse organising level
 - **Syntactic analysis**: segmentation into dependency clauses (and functional sequences)
 - **Prosodic analysis**: segmentation into major (and intermediary) prosodic units

Mapping of prosody and syntax

- A BDU emerges from the mapping of coinciding syntactic and prosodic boundaries
 - Halford's 'talk units', i.e. "the maximal unit defined by syntax and intonation". (Halford 1996: 43)
- Concretely, PRAAT script → 5 types of BDUs

Types of BDU

DC	[]	[a, md]	[] []	[]	[] [] []
MPU	[]	[]	[]	[] [] []	[] []
BDU	[bdu-c]	[bdu-a]	[bdu-i]	[bdu-s]	[bdu-x]

(Degand & Simon 2009a)

- **Congruent BDU-c** : one dependency clause corresponds to one major prosodic unit
- **BDU-s grouped by syntax**: several major prosodic units correspond to one dependency clause
- **BDU-i grouped by intonation**: several dependency clauses correspond to one major prosodic unit
- **Adjunct BDU-a** (or regulatory): a non governed element is autonomized in a major prosodic unit
- **Mixed BDU-x** : sequence of mismatching syntactic and intonation units

Corpus LOCAS-F

- **Louvain Corpus of Annotated Speech – French**
(collaboration with Anne Catherine Simon, Laurence Martin - Noalig Tanguy, Thomas Van Damme)
 - **14** « genres »
 - Communicative situations (degree of interactivity, degree of preparation, degree of broadcasting, number of speakers)
 - **48** audio samples
 - 3 hours 38 minutes
 - ca. 15 min/genre
 - **48** different speakers (12 speakers in more than one genre)
 - At least 3 different speakers per genre
 - **41 322** tokens

BDUs and Discourse Markers

- Are BDUs adequate discourse units for the description of DMs in spoken language?

Discourse Markers

- Linguistic expression whose primary function lies at the discourse level, i.e. relating their host utterance to the discourse situation.
- Can play a threefold role:
 - contributing to the discourse organization (textual coherence),
 - to the speaker/hearer interaction (interpersonal meanings),
 - and/or to speaker attitudes

Discourse Markers in LOCAS-F

- Macro-syntactic constraints
 - It has to be syntactically detachable from a sentence (Schiffrin 1987)
 - They do not enter into the construction syntactically with other elements of the sentence (Sankoff et al. 2007)
 - [DMs are] “either outside the syntactic structure or loosely attached to it” (Brinton, 1996: 34).
- **Weak clause association** (outside the dependency clause)
- Identification of 1780 DM tokens (73 types)
- Subordinating conjunctions do not always count as DMs!

DMs as markers of coherence relations

- The analysis of discourse markers is part of the more general analysis of discourse coherence—how speakers and hearers jointly integrate forms, meaning, and actions to make overall sense out of what is said. (Schiffrin, 1987:49)
- ... the recognition of coherence relations by the hearer or reader enables them to assign coherence to a text. Discourse markers guide the text receiver in the recognition of those relations. (Taboada, 2006: 567-568)
- ...connectives certainly play a role in guiding the interpretation of the relation: the coherence relation that is assumed between the segments must be compatible with the meaning of the connective and with the meaning of the segments. (Sanders, Spooren & Noordman, 1993: 94)

Or not?

- ... theories of discourse based on coherence relations are not adequate in general, and in particular not adequate as a framework for analysing discourse connectives. (Unger, 2006: 420)
- ... there is no evidence that discourse is hierarchically structured beyond the sentence level. (Unger, 2006: 424)
- No appeal to hierarchical discourse structure is necessary. On the contrary, in a relevance theoretic framework there is no reason to assume discourse segments in the sense of formal entities or units. (Unger, 2006: 428)

Position of DMs in LOCAS-F

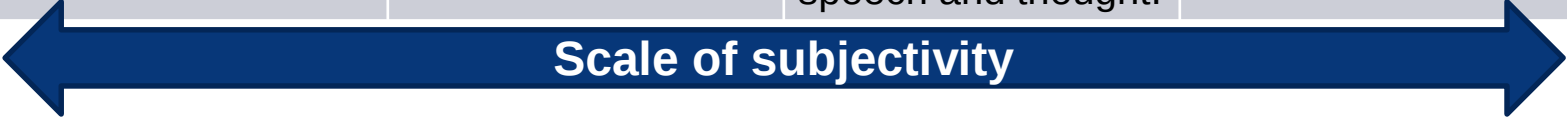
	Initial	Medial	Final	Isolated
BDU	697 (39%)	833 (47%)	163 (9%)	87 (5%)
Clause	1345 (83%)	88 (5%)	179 (11%)	/
Intonation Unit	715 (40%)	797 (45%)	181 (10%)	87 (5%)

→ Discourse markers work at clause level !

But...

Dimensions of spoken discourse

Ideational	Rhetorical	Sequential	Interpersonal
linked to states of affairs in the world, semantic relations between real events .	pragmatic relations applying to subjective claims, implicit assumptions or speech-acts.	linked to the structuring of discourse segments, explicitly signals of the progressing steps of speech and thought.	linked to intersubjective and phatic functions in the management of the speaker-hearer relationship



Scale of subjectivity

Functional domain and position in BDU

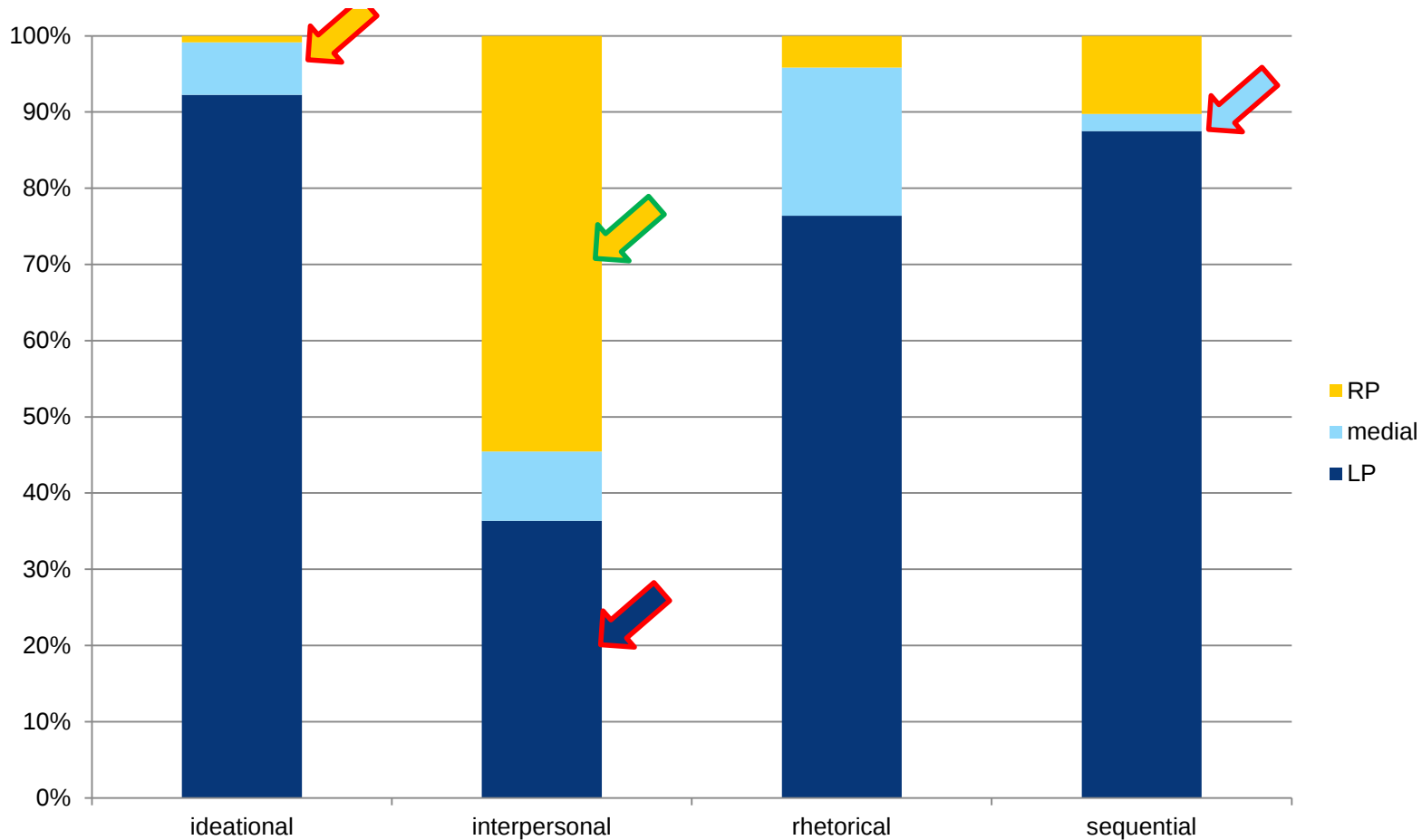
Domain	Position in BDU				Total
	initial	medial	final	Isolated	
ideational	35 (43%)	45 (55%)	1(1%)	1(1%)	82
rhetorical	30 (26%)	70 (60%)	7 (6%)	9 (8%)	116
sequential	80 (43%)	77 (42%)	14 (8%)	13 (7%)	184
interpersonal	2 (13%)	9 (56%)	4 (25%)	1 (7%)	16
Total	147	201	26	24	398

Functional domain and position in clause

Domain	Position in clause				Total
	LP	Medial	RP	/	
ideational	76 (93%)	2 (2%)	1 (1%)	3 (4%)	82
rhetorical	80 (69%)	22 (19%)	2 (10%)	12 (2%)	116
sequential	141 (77%)	3 (2%)	20 (11%)	20 (11%)	184
interpersonal	5 (31%)	1 (6%)	8 (50%)	2 (13%)	16
Total	147	201	26	24	398

→ DMs play a relational and structuring role at the local level

Functional domain and position in clause



Discourse markers between BDUs?

- 764/1780 = 43%
- Causal DM?
 - 1 parce que!
 - voire toute la nuit // hein ///parce que on // enfin quoique ils se seront // levés // tôt ///C je s je suis pas sûre ///
 - 4 car (in prepared political address)

BACK TO *PARCE QUE*

On the interaction between syntax and discourse

- If BDUs don't do the job, back to the clause level!
- Are syntactic clauses discourse units?
- Are subordinating conjunctions markers of discourse relations?
- What about *parce que* in LOCAS-F?

The case of *parce que*

- 120 occurrences
 - 64 DM
 - 56 conj
- 47% of *parce que* occurrences are not identified as DMs, i.e. as potential markers of a discourse relation ... because they occur within a dependency clause
- Is this justified?

Subordinate *parce que*

- [dans le contexte // actuel /// ce hold- up // est // il est vrai
/// peu probable /// tout simplement *parce qu' il* serait trop
destructeur de valeur ///

→ *c'est tout simplement parce qu'il serait trop destructeur de valeur* que dans le contexte actuel ce hold-up est peu probable.

Cf. Groupe Lambda-L (1975); *parce que* works as an « opérateur » construing one new causal proposition on the basis of two propositions

Meaning of subordinate *parce que*

- alors // la // euh représentation métrique je vais passer assez rapidement *parce que* c' est pas l' objet mais pour clarifier les choses

→ Volitional cause

- The reason for *the volitional action in P* (skipping *la représentation métrique*) is *Q* (this is not the topic)

→ Objective relation; semantic; content, ideational, subject-matter, ...

Meaning of « paratactic » *parce que*

tourne // *parce que* apparemment c'est pas ça ///

→*? C'est parce que apparemment c'est pas ça que tourne

→ Subjective cause (speech-act cause)

Preliminary conclusion

- Subordinate *parce que* marks local semantic causal relation but not a discourse relation because ti does not link autonomous discourse segments (cf. Lambda-L 1975)
- « Coordinate » *parce que* marks local semantic causal relation AND a causal discourse relation between autonomous discourse segments

→ Am I serious?

Syntax vs. Discourse

- “Should it be assumed that hierarchical connections of clauses reflect hierarchical connections of discourse units and that non-hierarchical connections of clauses reflect non-hierarchical connections of discourse units (...)? Or should it be assumed that the two domains of connection are structurally independent of each other?” (Blühdorn 2008: 60)

Syntax vs. Discourse

- “The syntactic distinction between coordination and subordination is neutralized at levels higher than the sentence. On the levels of text and discourse it does not play any relevant role” (Blühdorn 2008: 60).
- Syntactic coordination does not mirror paratactic (non-hierarchical) discourse relations; syntactic subordination does not mirror hypotactic (hierarchical) discourse relations.
- >< Matthiessen & Thompson (1988): Structural parallelism between syntax, semantics and discourse (cf. also RST)

Syntax vs. Discourse

- “The interaction between hierarchical and non-hierarchical connections in syntax, semantics and discourse can only be described in appropriate detail on the basis of independent and explicit theories of each of the three domains of language structure.” (Blühndorn 2008)
- Syntax relates (main and subordinate) clauses
- Semantics relates conceptual entities (states, events, propositions)
- Discourse relates “rhetorically categorized units” (utterances or speech acts)

The case of coordinating *omdat*

ik uhm tussen de middag moesten we mijn zus en ik altijd bij mijn oma eten. **omdat** oma woonde alleen en mijn moeder vond dat zielig dus wij moesten dat oplossen (CGN, fn000634)

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At noon my sister and I had to have our lunch with Granny because Granny lived alone and my mother thought that was sad so we had to fix that

See also Persoon, Quené, Sanders, Verhagen (2010)

Coordinating *omdat*

- Persoon et al. 2010:
 - Language change: co-*omdat* = epistemic *weil* (Keller 1989), a case of semantic change (*denn* → co-*weil*): NO!
 - Subjectification analysis: sub-*omdat* < co-*omdat* < want : NO!
 - Prosodic analysis: Differences, but no strong functional profile

The syntactic status of coordinating *omdat*

- Why does *omdat* (sometimes) occur with main clause order?
- Is *omdat* both a subordinating and a coordinating conjunction?
- Does coordinating *omdat* have a specific discourse function?
- Pilot study:
 - Dutch corpus Spoken Dutch (CGN), face-to-face, Netherlands, 18-24 years old
 - 1015 *omdat*-occurrences
 - 33 in main clause order (3.25%)

The syntactic status of coordinating *omdat*

- Syntactic coordination links causal segments of equal status wrt coordinator
 - Dutch: (mostly) two main clauses, coordinator is not part of the connected segments
- Coordinating *omdat* // coordinating *want* (28/33)

But! Coordinating *omdat* is not a real coordinating conjunction:

- Combination with other conjunctions: *maar omdat* (**maar want*)
- *dat komt omdat* (**dat komt want*)

Nor a real subordinating conjunction

The syntactic status of coordination *omdat*

- Syntactically in between coordination and subordination
 - Sentence-level: coordinating (*// want, car, denn, ...*)
 - Morphosyntax: subordinating conjunction
- Why use *omdat* in (syntactic) coordination?
 - Because the speaker wants to give equal syntactic status to the linked segments, without losing the morphosyntactic flexibility of a subordinating conjunction (?)

The semantic status of coordinating *omdat*

- “Non-hierarchical semantic connections are symmetrical. Their relata have equal semantic functions and equal semantic weight” (Blühdorn 2008: 70)

→ Reversibility without change of meaning

e.g. the penguins were yellow-brown, **and** the giraffes were black and white

Asymmetric semantic connections

- '[t]he relata of asymmetric connections cannot be inverted without significant semantic consequences. They have different relational (thematic) roles. One of them is being connected (...), the other is what it is being connected to (...)' (Blühdorn 2008)

Asymmetric causal connections

- syntactic coordination – asymmetric semantic relation

't zou jammer zijn als alle opnamen verknoeid waren omdat die vogel zo uh z'n best doet xxx. dat doet ie zeker **want** hij fluit van 's morgens vroeg tot 's avonds laat. (CGN, fn000518)

*It would be a pity if all recordings were spoiled because this bird is doing his best. He sure does **want** he is singing from early morning until late evening*

Asymmetric causal connections

- syntactic coordination – asymmetric semantic relation

maar ik zit even te denken of ik 's middags niet ook naar huis ga **omdat** ik heb tot half één tentamen.

*But I'm thinking about going home in the afternoon **omdat** I have exam until 12.30*

Asymmetric causal connections

- syntactic subordination – asymmetric semantic relation

's avonds willen ze geen bussen meer laten rijden. **omdat** die amper bezet zijn. (CGN, fn000795)

*In the evening they don't want any busses anymore **omdat** they are barely occupied*

The semantic status of coordinating *omdat*

- Not different from coordinating *want*
- Not different from subordinating *omdat*

? No semantic reasons to use *omdat* in coordination

The discourse status of coordinating *omdat*

- “hierarchical and non-hierarchical discourse relations should be defined as relations between rhetorically categorized units (such as utterances or speech acts) with certain rhetorical functions (such as topic and focus, or intended communicative effects)” (Blühndorn 2008: 77)
- How do we define/operationalize rhetorically categorized units?

The discourse status of coordinating *omdat*

- Interaction between relational and referential coherence (Kehler 2001, Stede 2016)
- Do coordinating and subordinating *omdat* diverge in terms of coreference patterns?
 - Different behavior at discourse level?

The discourse status of coordinating *omdat*

- Coreference = explicit mention of (at least) one same referent in the two related segments (anaphoric or lexical repetition)
 - Coordinating *omdat*: 19/33 (57%) NOT coreferential; 43% coreferential
 - Subordinating *omdat*: 19/33 (57%) is coreferential
- Coordinating *omdat* relates more autonomous segments at the discourse level (?)

The discourse status of coordinating *omdat*

- Analysis in terms of « talk-in-interaction » (e.g. Hakulinen & Selting 2005)
 - Spoken language is *transitory*, *irreversible*, and *synchronized* (Auer, 2009: 2-3)
 - Speech is “open” to formulation and re-formulation
- Not a single case of re-formulation of coordinating *omdat*

The discourse status of coordinating *omdat*

- Speculation ...
- Speakers first plan their causal relation
- Both *omdat* and *want* are good candidates to mark this relation
- If causal relation is correctly planned, no re-formulation of “incorrect” *omdat* instead of *want*.
- Confirmation with pause analysis: No pause before coordinating *omdat* (27/33)

The discourse status of coordinating *omdat*

- Cases of reformulation or re-start (10/33)
→ Second segment receives autonomous discourse status

[...] maar ja zelf was ie niet uit z'n dak aan 't gaan zeg maar.
omdat hij ja hij was gewoon aan 't werk dus ...

But he himself was not having the time of his life let's say
omdat *he yes he was just working so ...*

The discourse status of coordinating *omdat*

- Analysis of declination reset (cf. Persoon et al. 2010)
= pitch discontinuity after a boundary
→ Coordinating *omdat* is followed by reset in +/- 50% (17/33)
- Discursive independence of *omdat*-utterance is prosodically marked

→ Coordinating *omdat* has a specific discourse status which is different from subordinating *omdat*

Conclusion

- Taking the interaction between syntactic units and discourse units seriously raises interesting and challenging questions!
- Should we distinguish between discourse relations and syntactic/semantic relations?
- If we do, this might lead us to unforeseen conclusions!