

# Do topic shifts challenge discourse coherence?

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# How it all began...

- Analysis of atypical discourse, e.g. autistic narratives:
  - macrostructure (total number of story elements), microstructure (total count of words, clauses) (cf. Geelhand et al., 2020)
- Interest in codifying QUDs (Roberts, 1996/2021; Riester et al., 2018, etc.) and RRs (Asher & Lascarides, 2003):
  - aimed at typical discourse
- Autistic speech characterized as being incoherent:
  - abrupt topic-shifting (Bauminger-Zviely et al., 2014)
  - failure to develop the topic by contributing new, relevant information (Volden & Philips, 2010)

# Talk plan

1. Introduction
  1. Research questions
  2. Hypotheses
2. Methods
3. Results
  1. Literary narrative
  2. Interview
  3. Review
4. Discussion
5. Conclusion

# 1. Introduction

- **Discourse coherence:**

- Guaranteed by the principle of Relevance (Roberts, 1996/2012: 21): “a move  $m$  is *Relevant* to the question under discussion  $q$  iff  $m$  either introduces a partial answer to the  $q$  ( $m$  is an assertion) or is part of a strategy to answer  $q$  ( $m$  is a question)”.
- However, this strategic question-based discourse can be violated, for example, in literary texts (Onea & Zimmerman, 2019).
- Discourse coherence driven by its internal topic-comment structure, result of the contextual induction of explicit/implicit topic-constituting questions (Van Kuppevelt, 1995).

- **Topic shifts** realized under successive *feeders* (Van Kuppevelt, 1995: 142):
  - Associated TS: the new feeder **is** part of previous discourse (1).
  - Non-associated TS: the new feeder **is not** part of previous discourse (2).

(1)

F<sub>1</sub> A: We won't see Jones in the pub this afternoon.

Q<sub>1</sub> B: Why not?

A<sub>1</sub>/F<sub>2</sub> A: He has to meet his daughter at the airport.

Q<sub>2</sub> B: Where has she been this time?

A<sub>2</sub> A: This time she has been to Africa.

(2)

F<sub>1</sub> A: Mary is on holiday.

Q<sub>1</sub> B: When did she leave?

A<sub>1</sub> A: Yesterday.

F<sub>2</sub> A: Tomorrow, after many years, George will again apply for a job.

Q<sub>2</sub> B: Why?

A<sub>2</sub> A: A competitor of the company he works for has invited him to apply for the position of assistant manager.

# 1.1. Research questions

**RQ1:** What does a coherent piece of discourse involve?

**RQ2:** How do different TS relate to different QUDs?

**RQ3:** What are the possible rhetorical relations (RRs) that exist between different TS and previous utterances?

→ Main goal: To obtain a robust notion of coherence that helps us identify and characterize incoherent spontaneous discourse by autistic and typically developing children.

## 1.2. Hypotheses

1. For a piece of discourse to be coherent,
  - (a) TS (if any) need to be associated, or
  - (b) non-associated TS need to be explicitly signaled.
  
2. (a) While associated TS can be connected to previous discourse by a RR, (b) no RR can be established between a non-associated TS and a previous utterance.

## 2. Methods

- Analysis of relevant fragments of three texts distinguished by genre (literary narrative, interview, review) and register (spontaneous, planned).
- Our annotation includes the signaling of:
  - implicit text-structuring QUDs (inspired by Riester et al., 2018)
  - non-at-issue (NAI) material



# 3. Results

## 3.1. Literary narrative

(3)

"Susie lifts the lid of the abandoned teapot and swirls the water. The teabag sloshes against the sides. The tea is cold and bitter, but Susie doesn't mind because her landlady, Mrs Simpson, normally reuses tea bags. Usually, by the time Susie gets home, the tea mostly tastes of chlorine.

As she checks Mrs Simpson's calendar, Susie rubs the place where the elastic cap from work scrunched all day."

Q\_0 (=DT): {How is the way things are at  $t_0$ ?

Q\_0.1: {What does Susie do at  $t_1$ ?}

A\_0.1: Susie lifts the lid of the abandoned teapot

Q\_0.2: {What does Susie do at  $t_2$ ?}

A\_0.2: (and she) swirls the water

**Q\_0.3: {What happens at  $t_3$ ?}**

**A\_0.3: The teabag sloshes against the sides.**

Q\_0.3.1: {How does the tea look like?}

A\_0.3.1: The tea is cold and bitter

(...)

Q\_0.3.3: {How does the tea usually taste?}

A\_0.3.3: Usually the tea mostly tastes of chlorine.

Q\_0.3.3.1: {When?}

A\_0.3.3.1: by the time Susie gets home

Q\_0.4: {What happens at  $t_4$ ?}

A\_0.4: Susie rubs the place where the elastic cap from work scrunched all day.

Q\_0.4.1: {When?} [**NAI**]

A\_0.4.1: As she checks Mrs Simpson's calendar

(4)

"She scrubs her face pink before each shift. A single flake of dead skin can ruin a microchip. But **the factory** is also vacuum-dry and she has to moisturize often. She can only afford sunflower oil. For the whole day, she breathes the bitter staleness of cooking oil trapped behind the mask. Her tongue is always wool. In the dust-free factory, her mouth fills with the rat-grey feel of it. **She swallows the tea. Even if it's a matinee, Mr. Johnson will insist on dinner. Mrs. Simpson will pay."**

Q\_0 (=DT): {How is the way things are at  $t_0$ ?}

Q\_0.1: {What does Susie do before each shift?}

A\_0.1: She scrubs her face pink before each shift.

Q\_0.1.1: {Why does she scrub her face pink?}

A\_0.1.1: A single flake of dead skin can ruin a microchip.

Q\_0.1.2: {How is the factory?}

A\_0.1.2: But the factory is vacuum-dry.

[NAI] also: something else is vacuum-dry.

Q\_0.1.2.1: {What does Susie have to do with the factory?}

A\_0.1.2.1: and she has to moisturize often.

(...)

**Q\_0.2: {What happens at  $t_5$ ?}**

**A\_0.2: She swallows the tea.**

**Q\_0.3: {What will Mr Johnson do at  $t_6$ ?}**

**A\_0.3: Mr Johnson will insist on dinner.**

Q\_0.3.1: {Regardless of what will Mr Johnson insist on dinner?} [NAI]

A\_0.3.1: Even if it's a matinee

Non-associated  
TS?

RR?

RR?

RR?

## 3.2. Interview

(5)

**Laura Kuenssberg:** Prime Minister, in the last few weeks, you've lost major votes in the Commons, you've chucked some MPs out of your own party, the highest court in the land has found you broke the law and gave the wrong advice to the Queen. How do you think this is going?

**Prime Minister:** Well, I think that it's going about as well as could be, especially, if not slightly better.

**LK:** Really?

**PM:** Yeah. Because look, this was always going to be a very difficult time. What we've got, basically, is a situation in which the people voted for leaving the EU in the greatest expression of popular will in favour of any party or proposition in history. And, yes, there are many people in all sorts of positions, who don't think that was the right way to go. And I am tasked with getting it over the line, getting Brexit done by October 31.

**Q\_0: {What have you [PM] done in the last few weeks?}**

A\_0': In the last few weeks, you've lost major votes in the Commons

A\_0'': you've chucked some MPs out of your own party

A\_0''': you broke the law

A\_0'''': and gave the wrong advice to the Queen.

Q\_i: {What is the source of A\_0''' and A\_0''''?} [NAI]

A\_i: The highest court in the land.

Q\_0.1 (LK): How do you think **this** [=Q\_0] is going?

Q\_0.1.1: {How do you think **this** [=government] is going?}

A\_0.1.1(PM): Well, I think that it's going about as well as could be, especially, if not slightly better.

Q\_0.1.1.1 (LK): Really?

A\_0.1.1.1: Yeah.

Q\_0.1.1: {How do you think **this** [=government] is going?}

A\_0.1.1 (PM): Well, I think that it's going about as well as could be, especially, if not slightly better.

Q\_0.1.1.1 (LK): Really?

A\_0.1.1.1: Yeah.

Q\_0.1.1.1.1: {Why do you say so?}

A\_0.1.1.1.1: Because look, this was always going to be a very difficult time.

Q\_0.1.1.1.1.1: {What situation have you got?}

A\_0.1.1.1.1.1: What we've got, basically, is a situation in which the people voted for leaving the EU in the greatest expression of popular will in favour of any party or proposition in history.

(...)

Q\_0.1.1.1.1.3: {What are you tasked with?}

A\_0.1.1.1.1.3: And I am tasked with getting it over the line,

(6)

**LK:** You are blaming all of your woes on people who are trying to stop Brexit?

**PM:** No, I think it's just the just the predicament, is just the it's just the situation, that we're in as a country. And I think that things are actually much much better than they, than the political situation, might lead you to believe. Unemployment is at record lows. Foreign direct investment is at record highs. We're seeing this country at the cutting edge of innovation in everything from battery technology to bio science, we are doing fantastically well in so many ways.



Q\_0.1.2 (LK): You are blaming all of your woes on people who are trying to stop Brexit?

Q\_0.1.2.1: {What do you think is the cause?}

A\_0.1.2.1' (PM): No, I think it's just the predicament,

A\_0.1.2.1'': is just the it's just the situation

Q\_0.1.2.1.1: {What situation?}

A\_0.1.2.1.1: that we're in as a country.

Elaboration

**Q\_0.1.3: {How do you think things are?} (=Q\_0.1)**

Associated TS

A\_0.1.3: And I think that things are actually much better

Q\_0.1.3.1: {Much better than what?}

A\_0.1.3.1: than they, than the political situation might lead you to believe.

Q\_0.1.3.1.1: {Why do you say so?}

Q\_0.1.3.1.1.1: {How's unemployment?}

**A\_0.1.3.1.1.1: Unemployment is at record lows.**

Q\_0.1.3.1.1.2: {How's foreign direct investment?}

**A\_0.1.3.1.1.2: Foreign direct investment is at record highs.**

Q\_0.1.3.1.1.3: {What can you say regarding innovation?}

**A\_0.1.3.1.1.3: we're seeing this country at the cutting edge of innovation in everything from battery technology to bio science.**

Q\_0.1.3.1.1.4: {How are you doing in general?}

**A\_0.1.3.1.1.4: we are doing fantastically well in so many things.**

Explanation

Explanation

Elaboration

Explanation

## 3.3. Review

(7)

“How good is the Grand Tourer at the whole MPV thing?

The middle row of seats isn't divided into three separate sliding chairs as in some MPVs, but the lower bench does split into two individually sliding sections, and the backrests into three fold-down segments.”

- **No TS:** the information provided in the intermediate level of sub-questions helps to answer the explicit question.

Q\_0: How good is the Gran Tourer at the whole MPV thing?

Q\_0.1: {Is the Gran Tourer different from other MPVs with respect to the middle row?}

Q\_0.1.1: {Is the middle row of seats divided into three separate sliding chairs?}

A\_0.1.1: The middle row of seats isn't divided into three separate sliding chairs as in some MPVs,

Q\_0.1.2: {How do which parts of the middle row of the Gran Tourer split?}


Q\_0.1.2.1: {How does the lower bench split?}


A\_0.1.2.1: but the lower bench does split into two individually sliding sections,


Q\_0.1.2.2: {How do the backrests split?}


A\_0.1.2.2: and the backrests into three fold-down segments.

## 4. Discussion

 Hypothesis (1a): For a piece of discourse to be coherent, TS (if any) need to be associated.

 Hypothesis (1b): For a piece of discourse to be coherent, non-associated TS need to be explicitly signaled.

 Hypothesis (2a): Associated TS can be connected to previous discourse by a RR.

 Hypothesis (2b): Non-associated TS cannot be connected to previous discourse by a RR.

“In the case of an associated topic shift the new feeder is, or is directly provided by, a part of the preceding discourse” (Van Kuppevelt, 1995: 142)

**However,** both the text genre and register seem to determine the valid distance between the new topic and its feeder.

- Interview: the feeder immediately precedes the TS.
- Narrative: the new topic and the feeder are separated by more than one node in the discourse tree.

- **Discourse Topic (DT):** “The set of all topics that are constituted as the result of one and the same feeder” (Van Kuppevelt, 1995: 137)
- So, in the narrative, **reconstruction** on the part of the hearer needs to occur to:
  - associate what seem to be non-associated topic shifts to a DT or to a feeder higher in the discourse tree.
  - establish a RR between the utterance with the TS and an utterance from previous (higher) discourse.

# Recall...

"Susie lifts the lid of the abandoned teapot and swirls the water. The teabag sloshes against the sides. **The tea is cold and bitter, but Susie doesn't mind because her landlady, Mrs Simpson, normally reuses tea bags. Usually, by the time Susie gets home, the tea mostly tastes of chlorine.** As she checks Mrs Simpson's calendar, Susie rubs the place where the elastic cap from work scrunched all day. (...)

Mrs Simpson only makes fresh tea for Mr Johnson next door. One cup still contains a moss-smoke slick of whiskey. **Susie wipes the rim of the cup with her sleeve then pours herself some tea.** The whiskey is too dilute to be warm but it's nice to know it's there. (...)

She scrubs her face pink before each shift. A single flake of dead skin can ruin a microchip. But the factory is also vacuum-dry and she has to moisturize often. She can only afford sunflower oil. For the whole day, she breathes the bitter staleness of cooking oil trapped behind the mask. Her tongue is always wool. In the dust-free factory, her mouth fills with the rat-grey feel of it. **She swallows the tea.** Even if it's a matinee, Mr Johnson will insist on dinner. Mrs Simpson will pay."

- The amount of implicit QUD reconstruction and search for topic (and RR) association would not be admitted in plain (oral) conversation:

(8) A: I went to the mountain last Saturday.

B: Did you? Didn't it rain?

A: It was terribly cold, but thankfully it didn't.

B: Lucky you, climbing a mountain with heavy rain can become a nightmare.

A: Have you ever done it?

B: Yeah, and it wasn't a nice experience.

A: The sun was shining. [TS]





✓ Hypothesis (1a): For a piece of discourse to be coherent, TS (if any) need to be associated.

✓ Hypothesis (1b): For a piece of discourse to be coherent, non-associated TS need to be explicitly signaled.

✓ Hypothesis (2a): Associated TS can be connected to previous discourse by a RR.

✓ Hypothesis (2b): Non-associated TS cannot be connected to previous discourse by a RR.

## 5. Conclusion

- **Coherence** can be defined as the **absence of implicit non-associated TS**.
- The conditions of legit TS - and hence of the amount of permitted QUD reconstruction - needs to be relativized to genre, register, and speakers' intentions.

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# THANK YOU!

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