Blazing the narrative path:

Motion events and narrative structure in the English pear stories

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ICLC -12 23-28 June 2013

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The narrative path

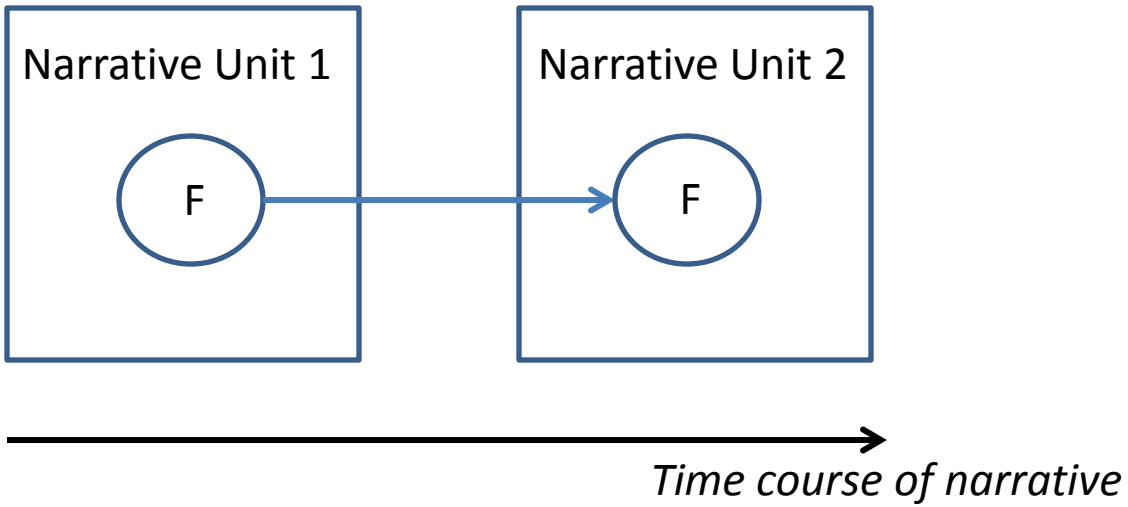
- **Narrative as Source-Path-Goal schema**
  - Many studies have explored the metaphorical realizations of S-P-G in narrative (e.g., Johnson, 1993; Talmy, 2000)
    - **Plot;** overarching trajectory of characters/events; 'the hero's journey'
  - Bamberg (1994): motion event as an "**integrated link**" used to construct a "**narrative unit**" across different scenes
    - German
    - Developmental (children vs. adults)
    - Static stimuli (frog story)

The narrative path

- **Narrative as Source-Path-Goal schema**
  - **Narrative Units:** mental scenes consisting of spatial arrangements and manipulable figures
    - **centers of interest** (Chafe, 1980/1994)
    - **mental models** (Johnson-Laird, 1983)
    - **situation models** (Zwaan & Radvansky, 1998)

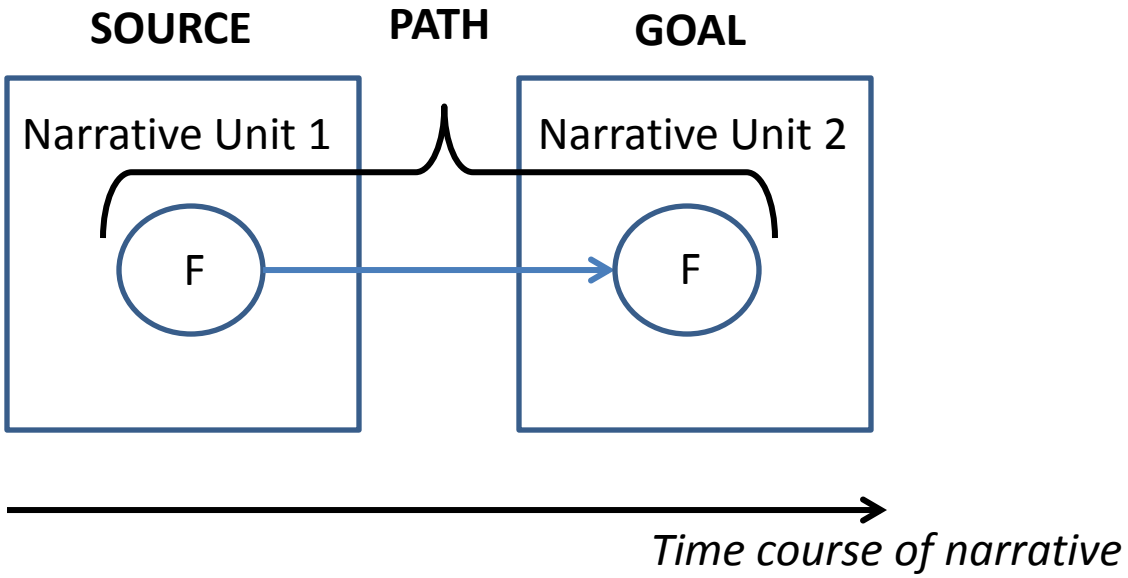
The narrative path

- **Narrative as Source-Path-Goal schema**
  - Progression through narrative = transitioning between NUs via the motion of a selected Figure (F)



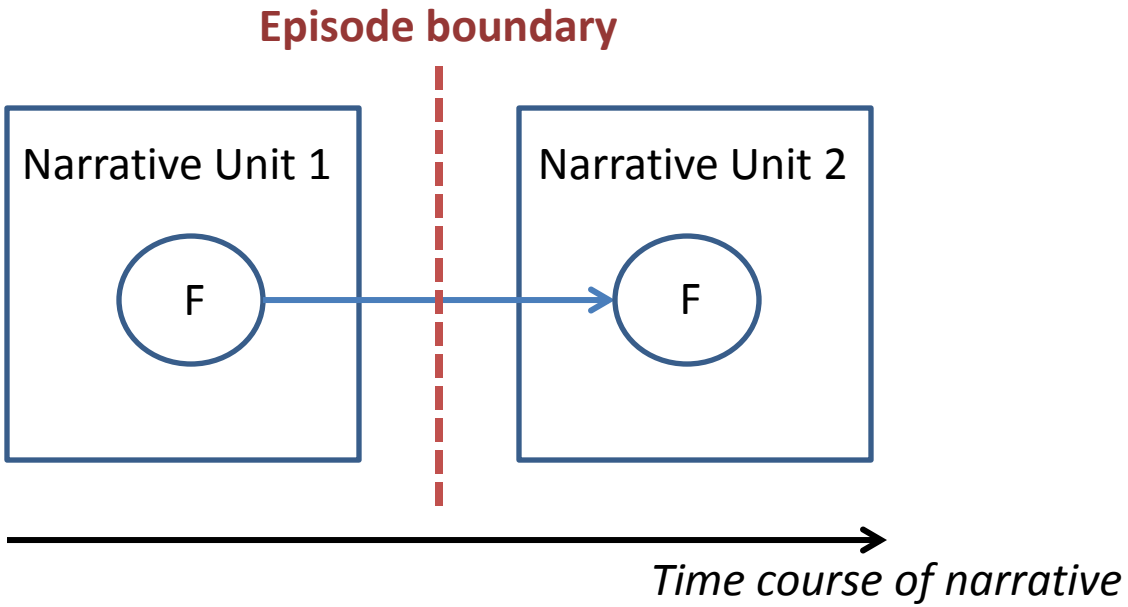
The narrative path

- **Narrative as Source-Path-Goal schema**
  - **Source/Goal** = narrative units
  - **Path** = volitional motion event



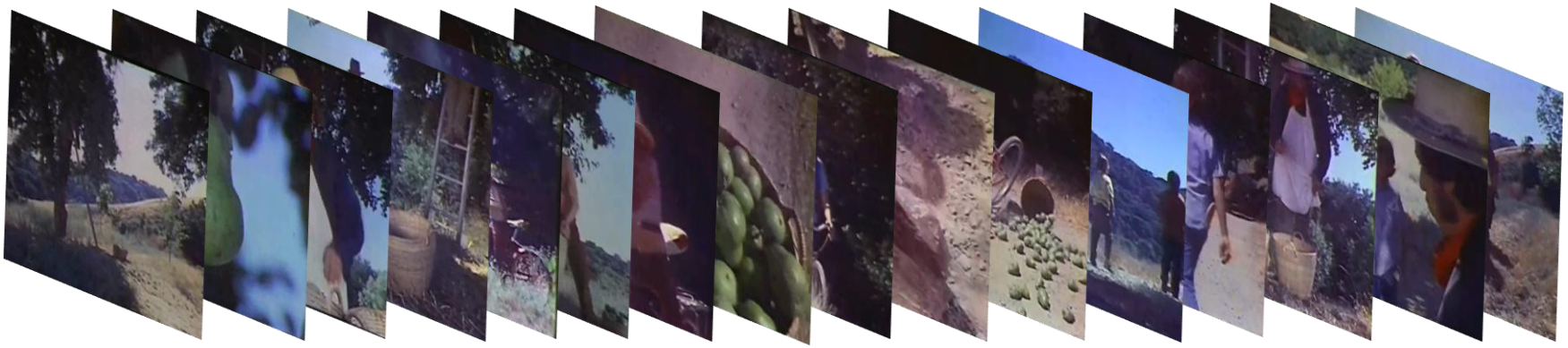
The narrative path

- **Narrative as Source-Path-Goal schema**
  - Transition between the narrative units = crossing an **episode boundary** (Chafe, 1994; p. 138)



The pear film (Chafe, 1980)

- **Basic experience:** linear sequence of distinct events, perspectives, etc.



Time course of narrative

The narrative path

- **Transforming experience:** carving out narrative units

Time course of narrative

The narrative path

- **Transforming experience:** carving out narrative units

TREE

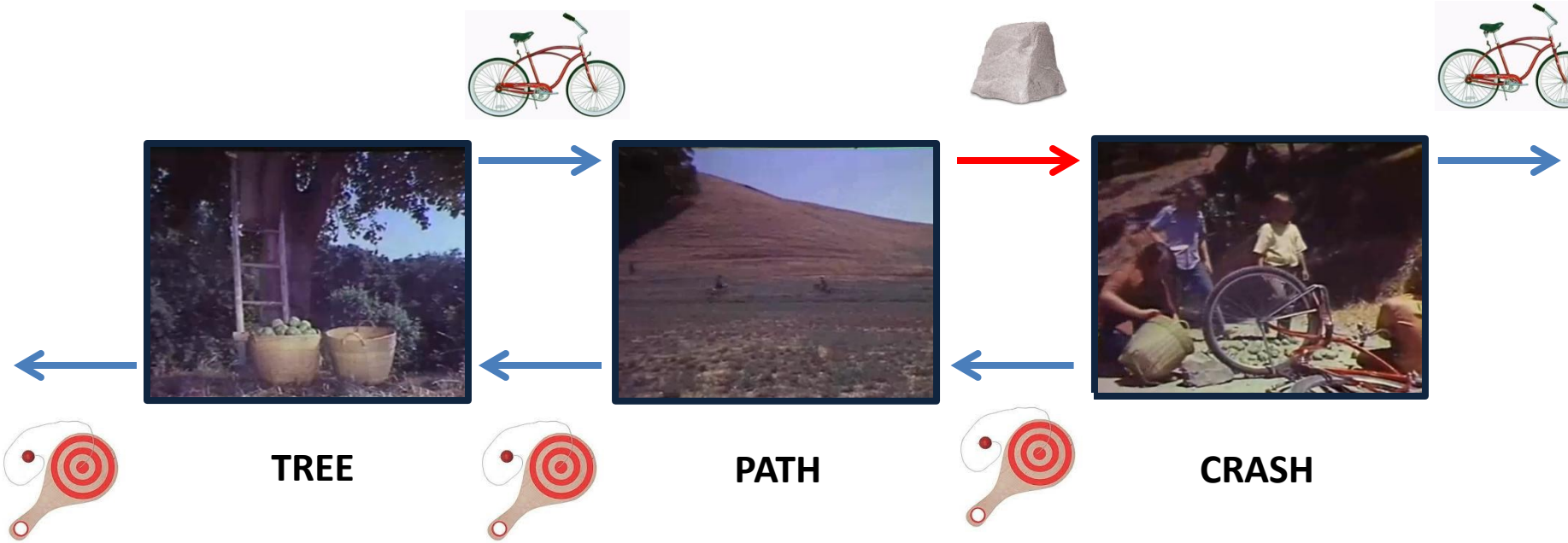
PATH

CRASH

Time course of narrative

The narrative path

- **Narrative as Source-Path-Goal schema**



Current study

- **Research question**
  - **How do we construct narratives online by means of the narrative path?**
    - Do the **motion predicates** themselves exhibit any systematic tendencies with respect to **narrative function**?
      - » deictic motion predicates (**COME** and **GO**)

Data

- **Original English pear stories** (Chafe, 1980)
  - 20 narratives
  - Approx. 19,000 words
  - Transcribed and segmented into **intonation units***

*Thanks to Jack Du Bois for contributing his revised version.

Data

- **Original English pear stories** (Chafe, 1980)
  - **413** translational motion events
    - Only human themes
    - Coded for
      - **Verb Lemma** (COME, GO, etc.)
      - **First Mention** of a character (yes, no)
        - » Is the first mention of a character accomplished with a motion predicate?
      - **First Motion** of a character (yes, no)
        - » What type of motion verb is used to start treating characters as motile figures?
      - **Path Function**
        - » Is the character entering, exiting, or moving within an NU?

Method

- **Distinctive Collexeme Analysis (DCA)**

  (Gries & Stefanowitsch, 2004)

  - **Association strength** of a level of IV (e.g., **Verb Lemma)** to the levels of a DV (e.g., **Path Function**: enter, exit, and internal)
  - Can be positive (**attraction**) or negative (**repulsion**)
  - Helps us to determine the functions of a **verb** given the overall distribution of motion predicates

DCA carried out with Coll.Analysis 3.2 (Gries, 2007)

Method

- **Distinctive Collexeme Analysis (DCA)**

  (Gries & Stefanowitsch, 2004)

  - **Three Distinctive Collexeme Analyses**
    1. **Path Function ~ Verb Lemma**
       - » Are certain verbs more likely to be used as NU-entering/exiting/internal motion?
    2. **First Mention (of a story character) ~ Verb Lemma**
       - » Are certain verbs more likely to be used to introduce characters into the narrative?
    3. **First Motion (of a story character) ~ Verb Lemma**
       - » Are certain verbs more likely to be used to initiate the motile status of a character?

DCA carried out with Coll.Analysis 3.2 (Gries, 2007)

Results

- **DCA 1: Path Function ~ Verb Lemma**

	ENTER	EXIT	INTERNAL
CLIMB			**
COME	***	***	
GO	*	***	
HAPPEN	**		
HEAD		*	
PASS		*	**
RIDE		**	

(Only Spk 15)

***p<0.001 **p<0.01 *p <0.05 (Fisher-Yates exact test)

Only significantly attracted/repulsed verbs are shown

Results

- **DCA 1: Path Function ~ Verb Lemma**

	ENTER	EXIT	INTERNAL
CLIMB			**
COME	***	***	
GO	*	***	
HAPPEN	**		
HEAD		*	
PASS		*	**
RIDE		**	

Strongest ENTER

Strongest EXIT

***p<0.001 **p<0.01 *p <0.05 (Fisher-Yates exact test)

Only significantly attracted/repulsed verbs are shown

Results

- **DCA 2: First Mention ~ Verb Lemma**

	YES	NO
COME	***	
GO		**
HAPPEN	**	
WALK		*

***p<0.001 **p<0.01 *p <0.05 (Fisher-Yates exact test)

Only significantly attracted/repulsed verbs are shown

Results

- **DCA 2: First Mention ~ Verb Lemma**

	YES	NO	
COME	***		Strongest YES
GO		**	Strongest NO
HAPPEN	**		
WALK		*	

***p<0.001 **p<0.01 *p <0.05 (Fisher-Yates exact test)

Only significantly attracted/repulsed verbs are shown

Results

- **DCA 3: First Motion ~ Verb Lemma**

	YES	NO
COME	***	
HAPPEN	*	
PASS		*
RIDE		*
WALK		*

***p<0.001 **p<0.01 *p <0.05 (Fisher-Yates exact test)

Only significantly attracted/repulsed verbs are shown

Results

- **DCA 3: First Motion ~ Verb Lemma**

	YES	NO
COME	***	
HAPPEN	*	
PASS		*
RIDE		*
WALK		*

Strongest YES

***p<0.001 **p<0.01 *p <0.05 (Fisher-Yates exact test)

Only significantly attracted/repulsed verbs are shown

Results

- **Discourse functions of deictic predicates**
  - **COME**
    - **introduces entities**
      - **Entering the narrative** (presentative function)
        - » ***a guy*** *comes by leading a goat.* (Speaker 1)

Results

- **Discourse functions of deictic predicates**
  - **COME**
    - **introduces entities**
      - **Entering the narrative** (presentative function)
      - **Entering a narrative unit** (first time in a particular scene)
        - » *and .. just when he realizes that one basket is .. gone,*
          the three boys *come along,*
          eating their pears. (Speaker 3)

Results

- **Discourse functions of deictic predicates**
  - **COME**
    - **introduces entities**
      - **Entering the narrative** (presentative function)
      - **Entering a narrative unit** (first time in a particular scene)
    - **initiates entities as motile figures (first motion)**
      - » *the first scene is about … **there's a man** up in the tree.*
        (lines omitted)
        ***he comes down** with a load of pears,* (Speaker 2)

Results

- **Discourse functions of deictic predicates**
  - **COME**
    - **introduces entities**
      - **Entering the narrative** (presentative function)
      - **Entering a narrative unit** (first time in a particular scene)
    - **initiates entities as motile figures (first motion)**
  - **GO**
    - **Dismisses entities from the scene** (exit function)
      - » A:nd u:h then **he goes off**,
        .. and that's the end of that story, (Speaker 9)

Results

- **Discourse functions of deictic predicates**
  - **COME**
    - **introduces entities**
      - **Entering the narrative** (presentative function)
      - **Entering a narrative unit** (first time in a particular scene)
    - **initiates entities as motile figures (first motion)**
  - **GO**
    - **Dismisses entities from narrative units** (exit function)
    - **Disprefers introductions**

Discussion

- **COME: First Mention**
  - Focuses the **arrival** of a character into the zone of activity
  - Good choice simply because it's **intransitive** (e.g., Du Bois, 1987; Cumming, 1994)
    - Introducing characters is cognitively demanding and therefore tends to be realized with simple argument structure
  - Doesn't **overburden** the already cognitively demanding task of introducing a new referent with **details of manner**
    - However, amenable to secondary specifications of manner in the form of **participials**

      » *U::m then u:h a .. girl on a bicycle,*

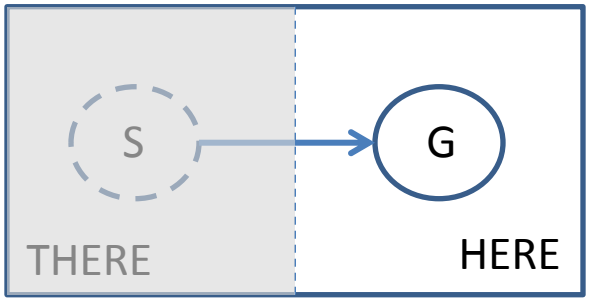
      comes riding towards him, (Speaker 6)

Discussion

- **COME: First Motion**
  - As Bamberg (1994) points out, entities tend to be introduced by means of the '**least presupposing form**.'
    - Deictic predicates are perhaps the **least presupposing motion predicates**
    - Encode the least amount of information for both path and manner of motion
      - Only the crossing of a deictic threshold
      - Compare against 'walk' and 'enter'

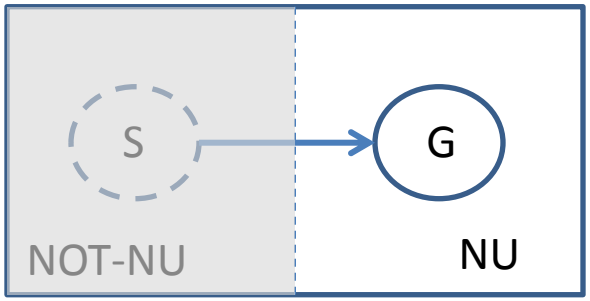
Discussion

- **COME: Narrative Unit entrances**
  - May have something to do with the limitations regarding **scope of cognitive awareness**
    - Schematic transition from ‘THERE’ to ‘HERE’
      - **We don’t need to expend resources to track a SOURCE**
      - **Source-Path-Goal frame invoked, but purely schematically**
      - **More trans. info on its own than a manner-motion predicate**



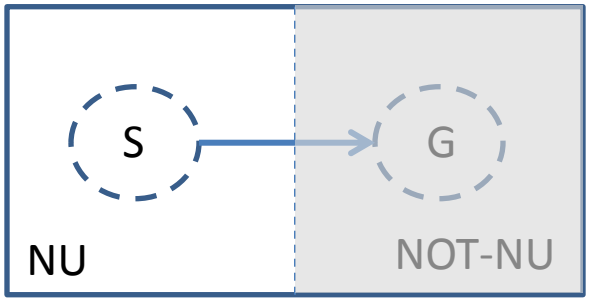
Discussion

- **COME: Narrative Unit entrances**
  - May have something to do with the limitations regarding **scope of cognitive awareness**
    - Schematic transition from ‘THERE’ to ‘HERE’
    - **Deictic threshold** reinforces the **emergence** of entities from without the unit to within the unit



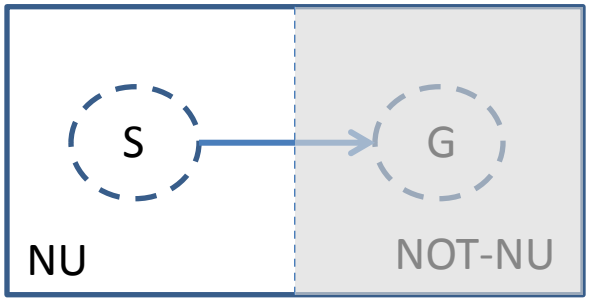
Discussion

- **GO: Narrative Unit exits**
  - May have something to do with the limitations regarding **scope of cognitive awareness**
    - Schematic transition from 'HERE' to 'THERE'
      - **We don't need to expend resources to track a GOAL**
      - **Source-Path-Goal frame invoked, but purely schematically**
      - **More trans. info on its own than a manner-motion predicate**



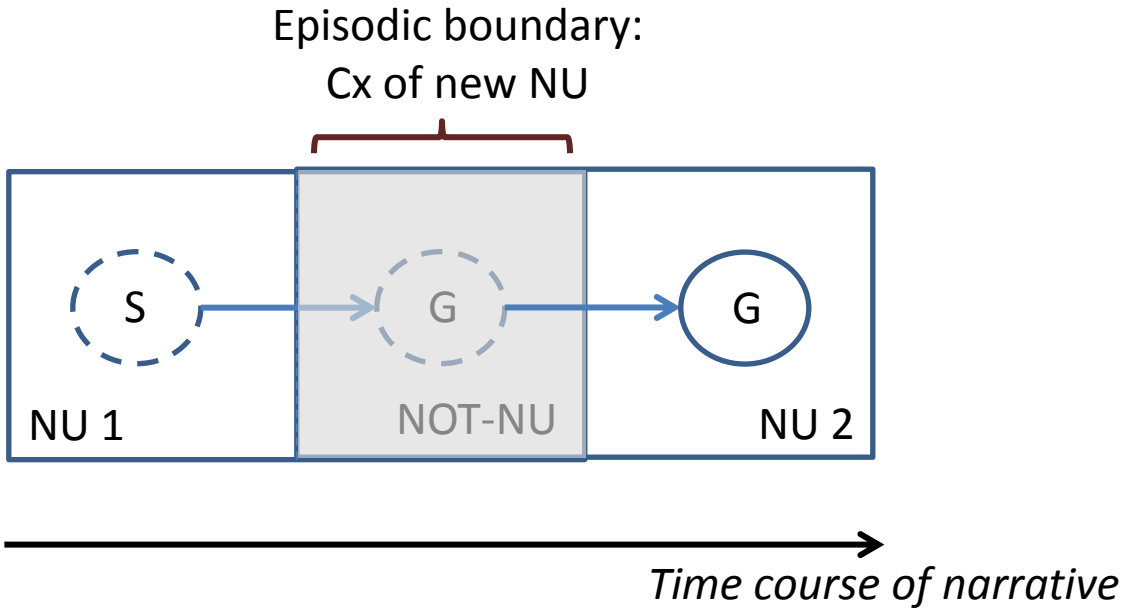
Discussion

- **GO: Narrative Unit exits**
  - May have something to do with the limitations regarding **scope of cognitive awareness**
    - Schematic transition from ‘HERE’ to ‘THERE’
    - **Deictic threshold** reinforces the **removal** of entities (from within the unit to without the unit)



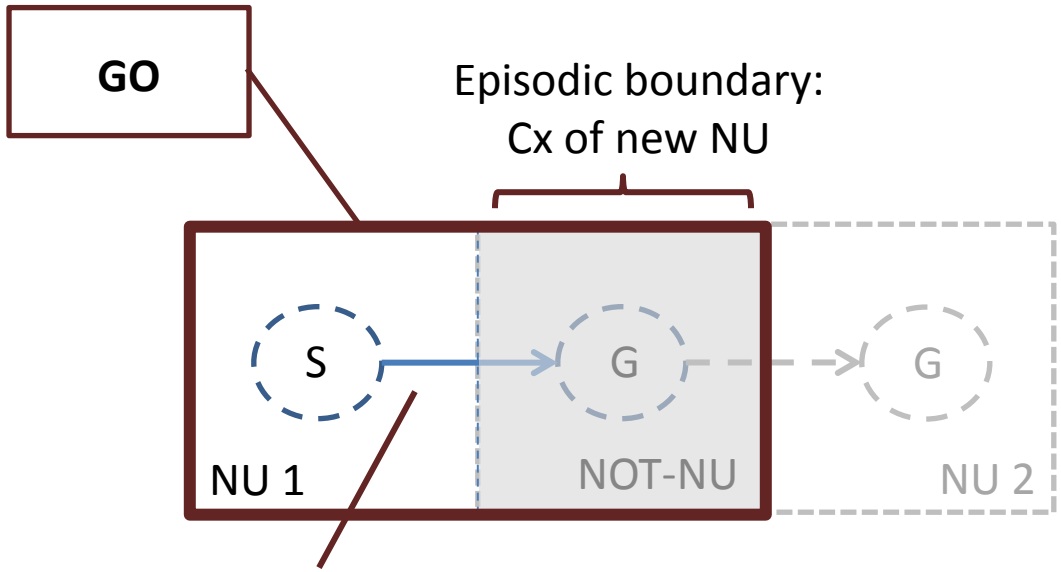
Discussion

- **GO: Narrative Unit exits**
  - Further, in NU transitions, **frees up resources** involved in the construction of the next NU **(no commitment to 2 NUs simultaneously)**



Discussion

- **The narrative path**
  - With deictic motion predicates, anyway

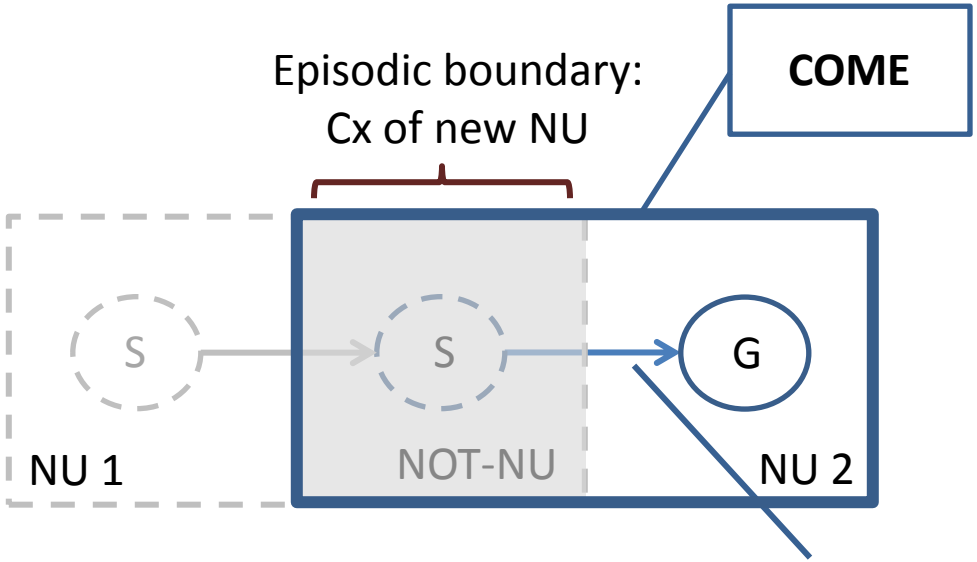


*…the boys **go** .. um .. walking along,* ……

CRASH - exit

Discussion

- **The narrative path**
  - With deictic motion predicates, anyway



*…the boys **go** .. um .. walking along,* ……. *the three boys **come** along,*

CRASH - exit **TREE - enter** (Speaker 3)

Conclusions

- **When verbalizing the experience of a non-verbal narrative, we**
  - chunk events into broader **narrative units**
  - Transition into and out of these units via a **narrative path**
    - Link NUs with concrete motion events
    - Manipulate figures along this path to serve a number of functions

Conclusions

- **Certain verb types cluster around particular functions**
  - **COME**
    - presentative
    - initiation as motile
    - entering narrative units
  - **GO**
    - exiting narrative units

Conclusions

- **Finally, the functions of the deictic predicates**
  - reflect **lexical-semantic properties** of the verbs
    - Deictic thresholds; schematicity of sources/goals
  - are tuned to **contain cognitive effort** at crucial points within the online construction of the narrative
    - unspecified goals at NU transitions (episode boundaries)

Thank you.

References

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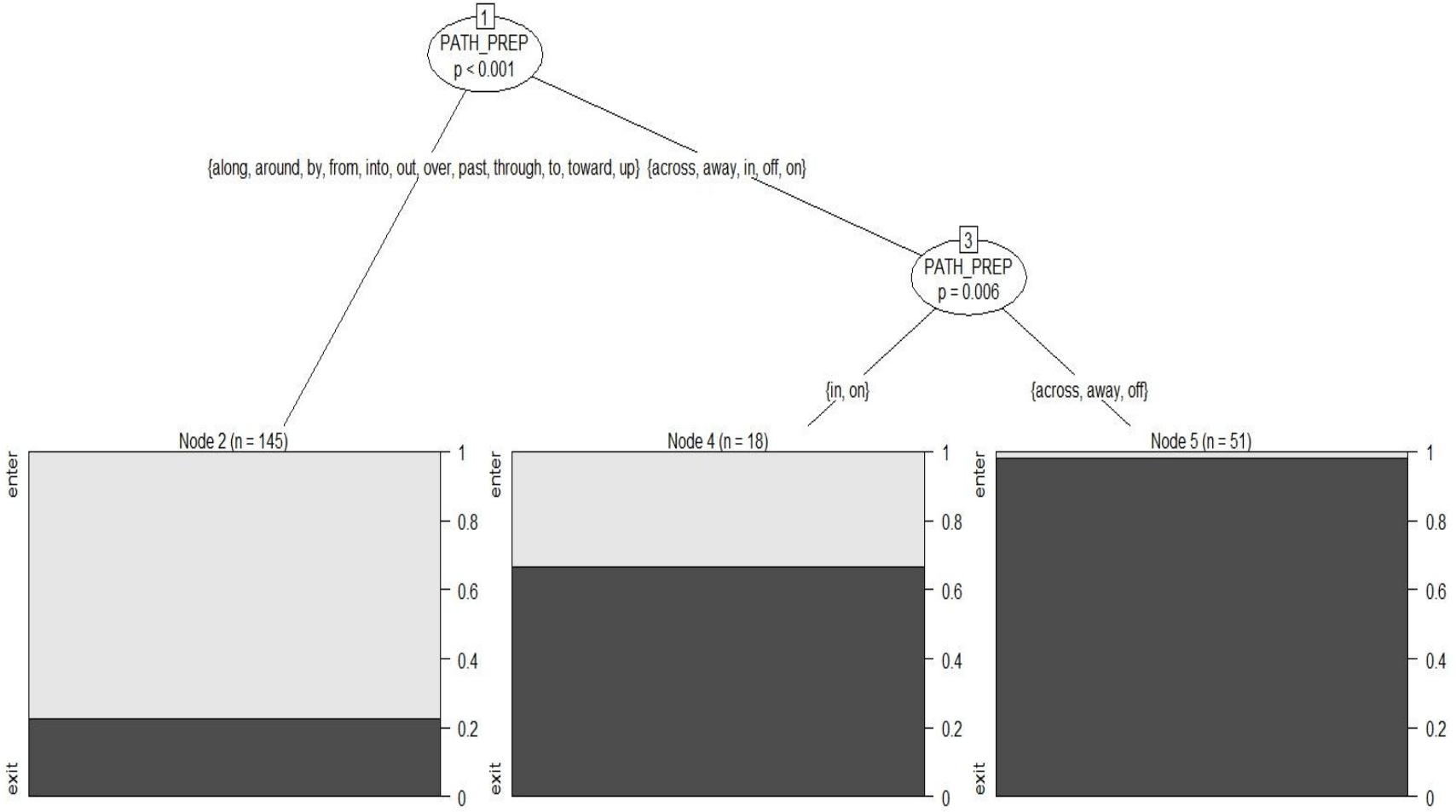
Results: Prepositions



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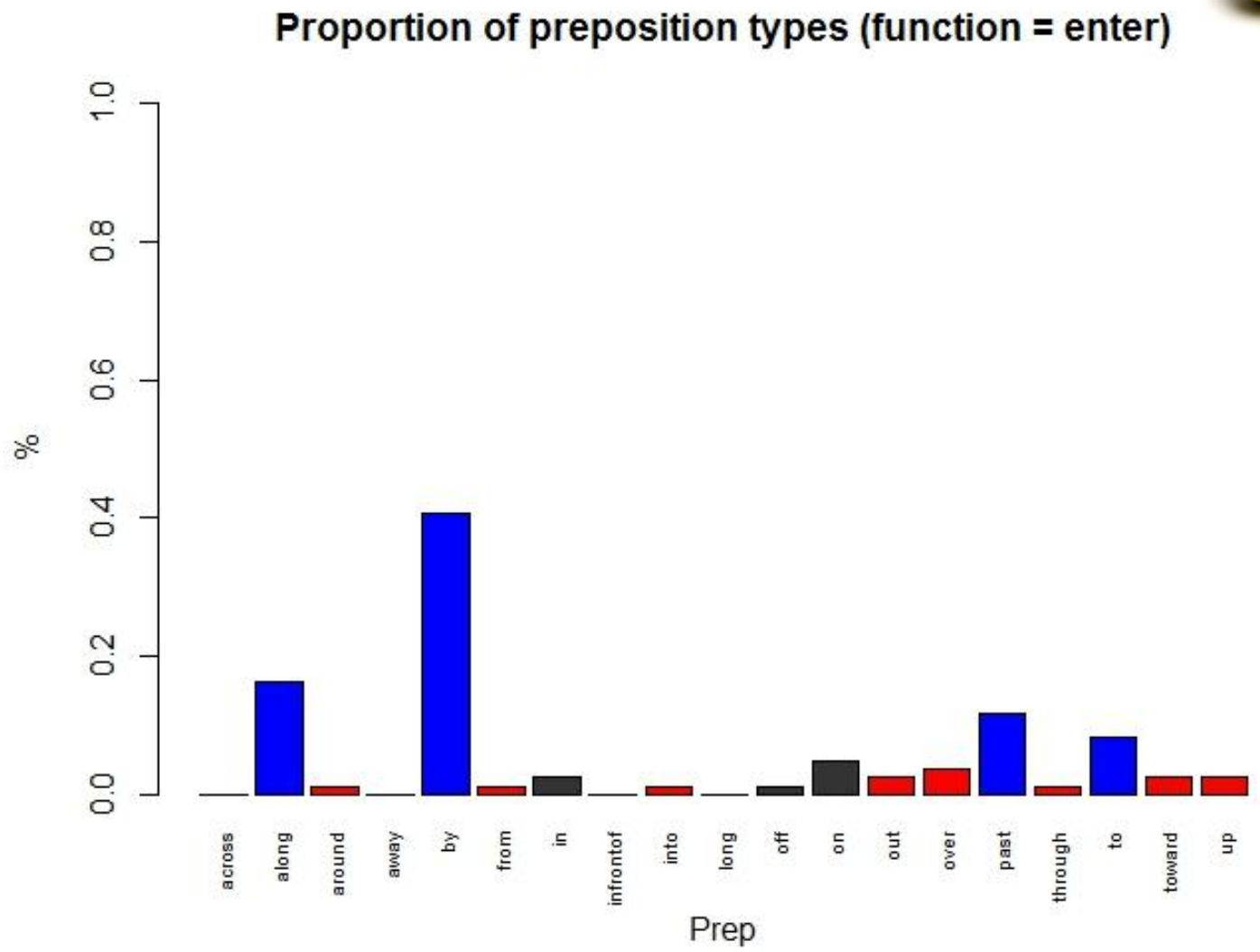
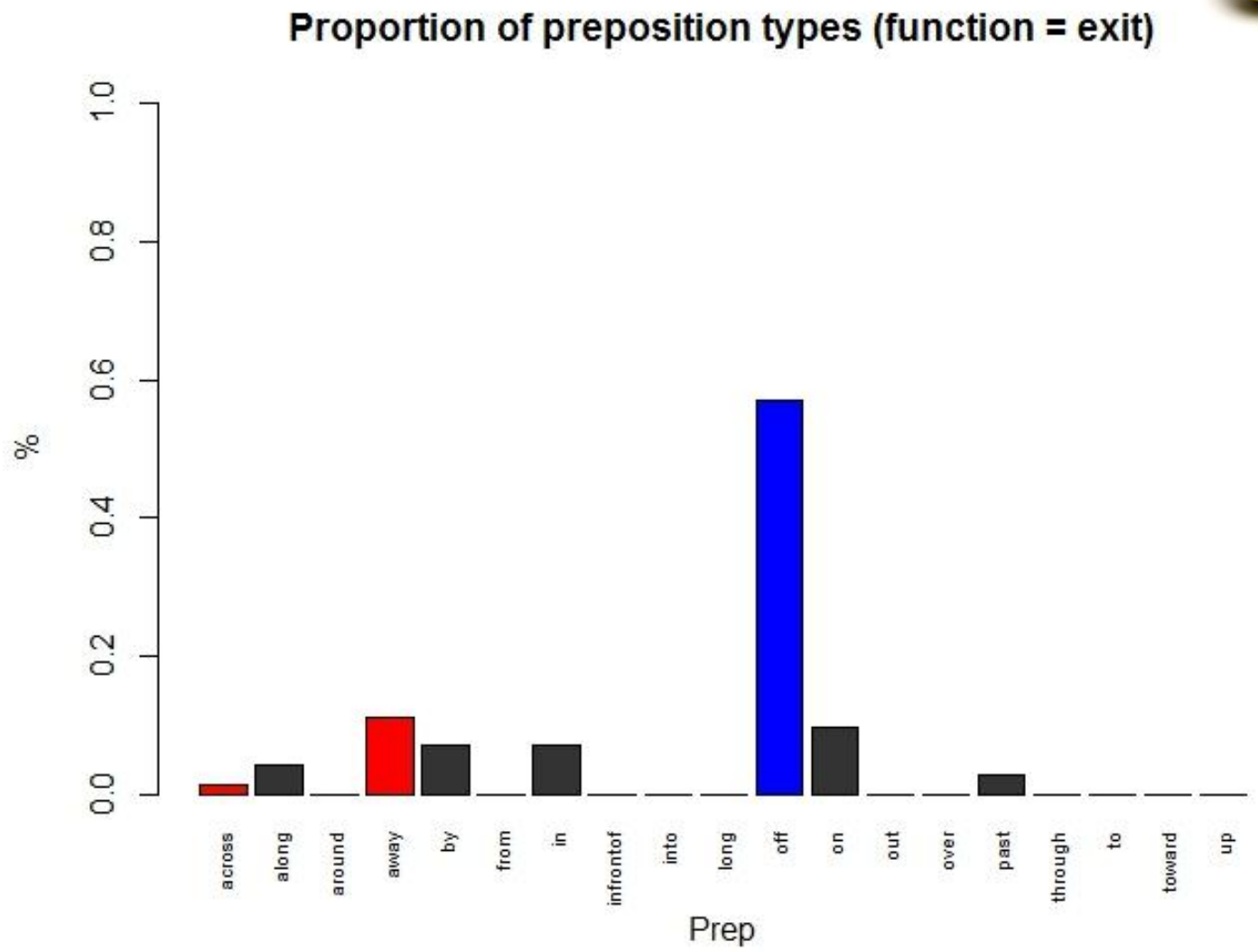


Results: Prepositions

- **Discourse functions of path-specifying prepositions**
  - **Entrances**

Prep	Freq	Verb types
along	14	**COME (12)**, DRIVE (2)
by	35	**COME (17)**, GO (6), WALK (5), HAPPEN (4), RIDE (2), PASS (1)
past	10	GO (4), COME (2), WALK (2), DRAG (1), LEAD (1)

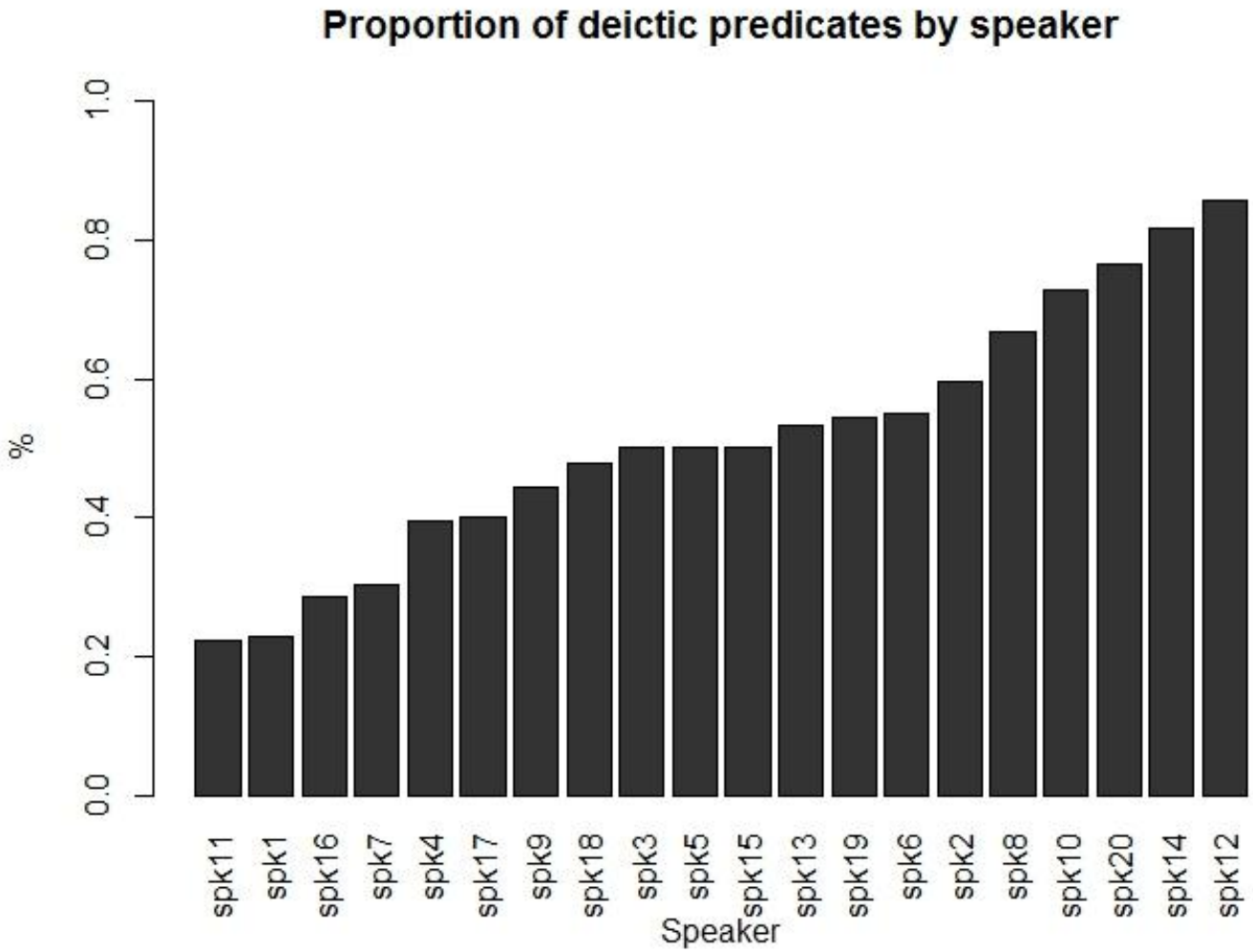
Results: Prepositions

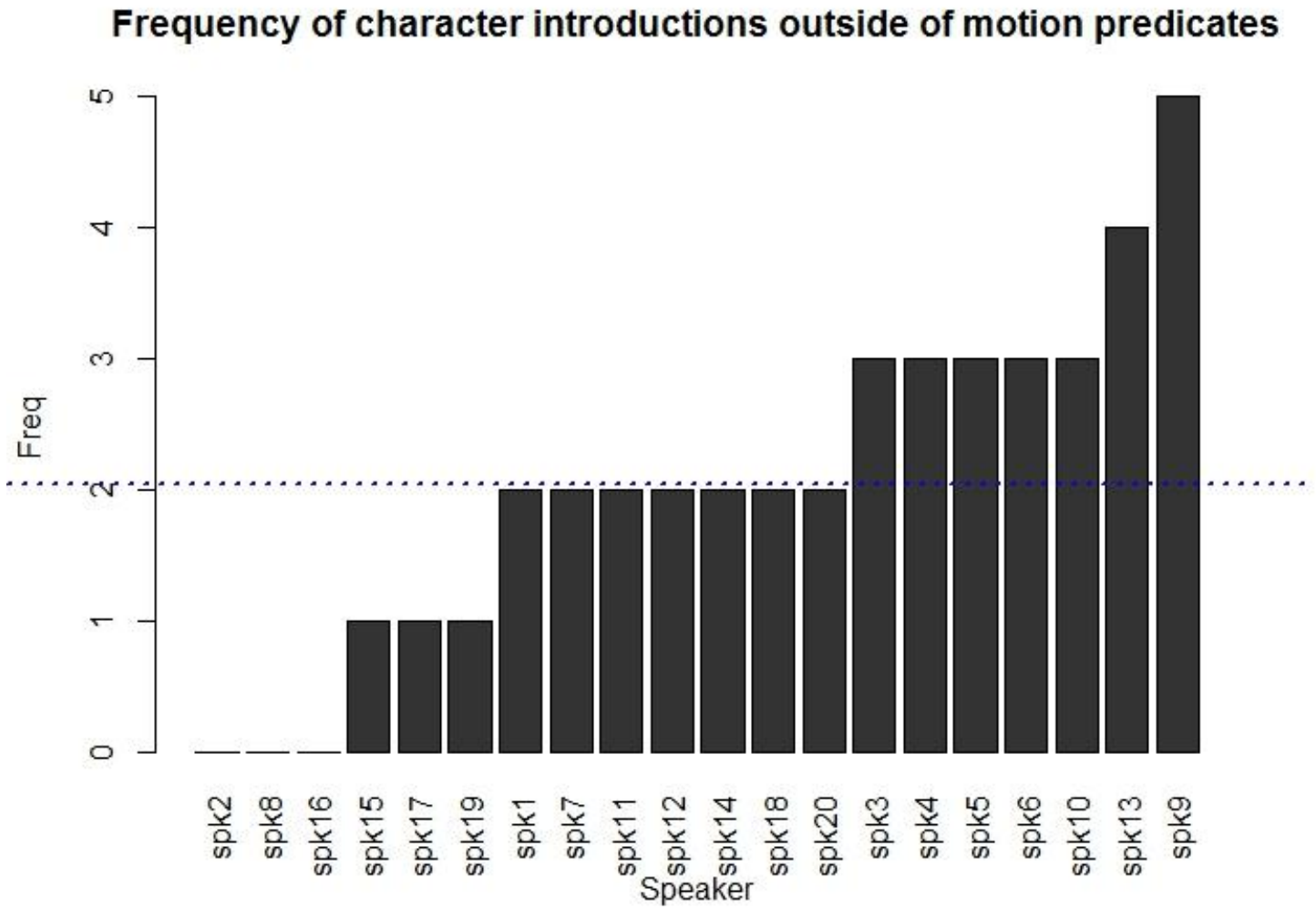


Results: Prepositions

- **Discourse functions of path-specifying prepositions**
  - **Exits**

Prep	Freq	Verb types
away	8	RIDE (5), WALK (3)
off	41	**RIDE (14)**, **GO (12)**, WALK (7), DRIVE (4), TAKE (2), BICYCLE(1), HEAD (1)
on	7	**GO (6)**, WALK (1)


Proportion of deictic predicates by speaker
%
0.0
0.2
0.4
0.6
0.8
1.0
spk11
spk1
spk16
spk7
spk4
spk17
spk9
spk18
spk3
spk5
spk15
spk13
spk19
spk6
spk2
spk8
spk10
spk20
spk14
spk12
Speaker


Frequency of character introductions outside of motion predicates
Freq
0
1
2
3
4
5
spk2
spk8
spk16
spk15
spk17
spk19
spk1
spk7
spk11
spk12
spk14
spk18
spk20
spk3
spk4
spk5
spk6
spk10
spk13
spk9
Speaker