Using X-LAN to Annotate Oral Discourse

Elena Pascual-Kiesg (University of Cádiz & IAC with Vodafone)

1. What is X-LAN and how does it work?
2. Annotating with X-LAN: dealing with oral discourse
3. Some final remarks

1. Transcription procedure
   - Challenges:
   - Interspeaker overlapping speech: Annotating it (1)
   - Low transcriber speed: Language readout, corrected at (3)
   - High material (long segments) in text to transcribe

2. Annotation of DRR
   - Problems such as polyfunctionality call for solutions in the annotation procedure.
   - Flexible tag system: XIOS, XAMT, etc...

Thank you very much! 😊

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Using ELAN to Annotate Oral Discourse

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What is ELAN and how does it work?
- ELAN (EUDICO Linguistic Annotator), v. 5.0.2-alpha
- Developed at Max Planck Institute for Psycholinguistics, Nijmegen (The Netherlands)
- Free tool for annotating video and audio (multi-modal) resources

Annotating with ELAN: dealing with oral discourse
AIM: Transcribing and annotating DRD in a conversational fragment

1. Transcription procedure
2. Annotation of DRD

1. Transcription procedure
- Noise, inaudible speech (marked as ‘( )’)
- Simultaneous speech (1 tier per speaker, marked as ‘| ’)
- Non-verbal and extralinguistic phenomena (1 tier for observations)

Some final remarks
- Annotating oral discourse is challenging but not impossible.
- Problems such as delimiting the function of DRD arise; but we have ways to address them.
- Problems such as polifunctionality call for solutions in the annotation procedure.
- Double tag system: IAS/M, MAS/T (Pons, 2016)
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- INPUT: media files (.wav, .mpg, .mpge, .mov, .mp4)
- OUTPUT: .eaf file ("EUDICO Annotation Format")
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**AIM:** Transcribing and annotating DRD in a conversational fragment


1. Transcription procedure
2. Annotation of DRD
1. Transcription procedure

Challenges:

- Noise, inaudible speech (marked as "(( ))")
- Simultaneous speech (1 tier per speaker, marked as "[ ]")
- Non-verbal and extralinguistic phenomena (1 tier for observations)

(a) DIY: Transcribe orthographically a fragment of Penny's speech

"right↓ my sister shot her husband but / it was an accident they were drunk"

1) Open the "video.eaf" file (File > Open > select "video.eaf"
2) Search for a previous segment in the annotation (Search > Find (and Replace) > and type "I mean")
3) Select a time interval by dragging the mouse and type the text.
1) Open the "video.eaf" file (File > Open > select "video.eaf")
2) Search for a previous segment in the annotation (Search > Find (and Replace) > and type "I mean")
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2. Annotation of DRD

Challenges:
- Oral vs. written discourse (informal vs. formal)
- Special features: concatenated syntax, continuous paraphrases, insertions, disfluencies, word order, indexical devices, direct speech, co-construction...

Different Resources for Discourse Coherence
(e.g. prosody, gestures...) But here we’ll focus on explicit DRD

DRD beyond the syntactic domain
- Invariable and independent units
- Core function at the sentence level
- Procedural units that guide inferences

Val.Es.Co. model
(Berry & Goffman: Val.Es.Co. 2014, 2016)

(b) DIY: Identify and annotate different types of Adjacent Subacts
1) Tolerance again the Tier “Penny” (Tier > Tolerance tier > select “Penny” as source tier and “Penny_words” as destination tier).
2) Activate the tier “subacts” and annotate DRD by clicking with the mouse or by pressing ‘Alt’ while clicking to group more than one segment together.

Problem: polifunctionality
- [AS/M]OKEY?/AS/M
- MAS/T right: MAS/T
Challenges:

- Oral vs. written discourse (informal vs. formal)

- Special features: concatenated syntax, continuous paraphrases, insertions, disfluencies, word order, indexical devices, direct speech, co-construction...

**DIFFERENT RESOURCES FOR DISCOURSE COHERENCE**

(e.g. prosody, gestures...) But here we'll focus on explicit DRD

**DRD beyond the syntactic domain**

- Invariable and independent units
- Don't function at the sentence level
- Procedural units that guide inferences
Val.Es.Co. model

<table>
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<tr>
<th>NIVEL</th>
<th>DIMENSIÓN</th>
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<tr>
<td></td>
<td>ESTRUCTURAL</td>
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<td>Alternancia de turnos</td>
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<td>Turno</td>
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<td>Subacto</td>
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</table>


SUBACT: minimal informative unit

- Prosody: equivalent to an intonation group
- Semantics: conveys different meaning

**Substantive subacts:**
- Director (DSS)
- Subordinate (SSS)
- Topicalized (TopSSS)

**Adjacent subacts:**
- Textual (TAS) *but, and*
- Modal (MAS) *oh, wow*
- Interpersonal (IAS) *yeah, hey*
**SUBACT: minimal informative unit**

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</tr>
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</tr>
<tr>
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{**TAS** thatat TAS} {**TopSS** your keys TopSSS} {**DSS** I cannot give them to you DSS} {**SSS** because {**MAS** see SAM} I don’t have another copy SSS} {**IAS** you know? IAS}

{**SAT** quee SAT} {**SSSTop** tus llaves SSSTop} {**SSD** no puedo dártelas SSD} {**SSS** porque {**SAM** mira SAM} no tengo otra copia SSS} {**SAI** ¿sabes? SAI}
(b) DIY: Identify and annotate different types of Adjacent Subacts

1) Tokenize again the tier "Penny" (Tier > Tokenize tier > select "Penny" as "source tier" and "Penny_words" as "destination tier").

2) Activate the tier "subacts" and annotate DRD by clicking with the mouse or by pressing "Alt" while clicking to group more than one segment together.

Problem: polifunctionality
2) Activate the tier ‘subacts’ and annotate DRD by clicking with the mouse or by pressing "Alt" while clicking to group more than one segment together.

Problem: polifunctionality

- IAS/M{OKEY?}IAS/M
- MAS/T{right }MAS/T
Some final remarks

- Annotating oral discourse is challenging but not impossible.

- Problems such as delimiting the function of DRD arise; but we have ways to address them.

- Problems such as polifunctionality call for solutions in the annotation procedure.
<table>
<thead>
<tr>
<th>Position</th>
<th>Subact</th>
<th>Act (A)</th>
<th>Intervention</th>
<th>Dialogue (D)</th>
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<tbody>
<tr>
<td>Initial (I)</td>
<td>I-DSS</td>
<td>I-SSS</td>
<td>I-A</td>
<td>I-II</td>
</tr>
<tr>
<td>Medial (M)</td>
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<td>M-SSS</td>
<td>M-A</td>
<td>Ø</td>
</tr>
<tr>
<td>Final (F)</td>
<td>F-DSS</td>
<td>F-SSS</td>
<td>F-A</td>
<td>Ø</td>
</tr>
<tr>
<td>Independent (Ind)</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
<td>Ind-II</td>
</tr>
</tbody>
</table>

- **I-DSS**: Directive substantive
- **I-SSS**: Subordinate substantive
- **M-DSS**: Initiative substantive
- **M-SSS**: Reactive substantive
- **I-II**: Initiative intervention (II)
- **I-RI**: Initiative intervention (RI)
- **M-D**: Digression
- **F-D**: Regression
- Problems such as polifunctionality call for solutions in the annotation procedure.

- Double tag system: IAS/M, MAS/T  (Pons, 2016)
Thank you very much!

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