

Incremental Processing Seminar: Seminar Papers and Summary

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Universität des Saarlandes

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- 1 How to write a good Seminar Paper
- 2 Brief Summary of Seminar Topics

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Writing a Seminar Paper

Don't just summarize: review, compare, criticise, discuss alternatives

- Describe the paper(s) you presented in class. Sometimes papers discussed different aspects not all of which were relevant to the seminar topic - pick your choice of focus, in particular if you are writing about more than one core paper.
- Style: like a research paper
- Literature search: find about 10 other papers that are related and use them to situate your paper(s), compare methods / results, discussion of supporting / conflicting results
- Compare methods / results in the paper with other material presented in the class or any other related work
- Include any ideas on improvement of the approach
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Grading criteria

- Clarity
- Paper organization
- Technical correctness
- Style (written in research style without inappropriate speculations, correct citations, etc)
- Your ideas are meaningful and interesting

Don't plagiarize!

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- Do not copy/paste any text unless you're making clear you're citing the exact formulation from a specific paper.
- You have to use your own words.
- If I find that you have plagiarized, you are going to fail the whole course.
- It's good style to cite generously.

Hints for how to write your seminar paper

- Other students in CL who haven't taken this seminar should be able to understand the paper – write as if you were addressing them.
- Use examples to explain ideas. Own examples will go beyond what's in the paper.
- Define technical terms.
- length of seminar paper is 10-15 pages - so it's going to be less detailed than the original papers! Focus on relevant aspects, select what to present.

Structure

- Abstract (convince the reader to read the rest of the paper!)
- Introduction (What's the problem? Why is it important?)
- Main Chapters (Background or Related Work; Technical Section(s); Evaluation Results; Discussion)
- Conclusions (summarize, open questions, directions)
- References

Latex and Bibtex

- I strongly recommend you write your seminar paper using Latex. This is a good occasion for learning how to use it if you haven't used it already.
- Spell checking is possible with Latex, too.
- Learn how to use bibtex. From google scholar, you can export references in bibtex format (in "Scholar Preferences").

Reminder: Grading

for 4 ECTS:

70% talk

15% peer review form

15% discussion / questions on presented papers

for 7 ECTS:

35% talk

10% peer review form

10% discussion / questions on presented papers

45% seminar paper

Deadlines

- **August 15th** submit what you consider a final version of your seminar paper, in pdf format.
- If you have questions when writing your report, you can come and ask me (will be back in my office from July 26th).
- I will give you comments on how to improve your paper.
- After getting feedback from me, you'll have another **two weeks** to submit a final version of your seminar paper.
- Note that I don't want to debug your first drafts or incomplete papers - if you're not done by August 15th, you miss out on comments and submit your final version directly, by September 15th.

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Summary of topics

- What was the most interesting / surprising thing we've talked about?
Something you will remember from the course?
- Time permitting: Let's do a summary together.

Psycholinguistics topics: PSY1

Evidence for / against strict incrementality

- Aoshima, Yoshida and Phillips (2009):
Incremental Processing of Coreference and Binding in Japanese
- Swets et al. (2008):
Underspecification of syntactic ambiguities: Evidence from self-paced reading

Psycholinguistics topics: PSY2

Incrementality and Prediction

- Altman, Kamide and Haywood (2003):
The time-course of prediction in incremental sentence processing: Evidence from anticipatory eye-movements.
- Staub and Clifton (2006):
Syntactic Prediction in Language Comprehension: Evidence From Either...or

Psycholinguistics topics: PSY3

Local Coherence Effects

- Tabor et al. (2004)
Effects of merely local syntactic coherence on sentence processing.
- Gibson (2006)
The interaction of top-down and bottom-up statistics in the resolution of syntactic category ambiguity.

Psycholinguistics topics: PSY4

How about language production?

- Fernanda Ferreira (2000).
Syntax in Language Production: An Approach Using Tree-Adjoining Grammars

Applications topics: APP1

Dialogue systems / interactions with agents

- Skantze, G. and Hjalmarsson, A. (2010).
Towards Incremental Speech Generation in Dialogue Systems.
- Skantze, G. and Schlangen, D. (2009)
Incremental dialogue processing in a micro-domain.
- Schlangen, D. and Skantze, G. (2009)
A general, abstract model of incremental dialogue processing.

Applications topics: APP3

Trade-off between incrementality (speed) and accuracy:

- Baumann, Atterer, Schlangen (2009)
Assessing and Improving the Performance of Speech Recognition for Incremental Systems
- Kato, Y. and Matsubara, S. and Inagaki, Y.(2004)
Stochastically evaluating the validity of partial parse trees in incremental parsing

NLP topics: NLP1

Incremental Parsing with a PCFG

- Brian Roark (2001)
Probabilistic top-down parsing and language modeling.

NLP topics: NLP2

Incremental Parsing with Dependency Grammars

- Nivre (2004)
Incrementality in Deterministic Dependency Parsing
- Menzel (2009)
Towards radically incremental parsing of natural language.

NLP topics: NLP3

Incremental Parsing with Tree-Adjoining Grammars (choose 3a or 3b)

- 3a:
 - Libin Shen and Aravind Joshi (2005).
Incremental LTAG parsing
 - Mazzei, Lombardo, Sturt (2007).
Dynamic TAG and Lexical Dependencies
- 3b:
 - Demberg, Keller and Koller, (2011, under review)
Incremental, Predictive Parsing with Psycholinguistically Motivated Tree-Adjoining Grammar
 - Demberg and Keller, (2008)
A Psycholinguistically Motivated Version of TAG

NLP topics: NLP4

Incremental Semantic Parsing

- Atterer and Schlangen (2009)
RUBISC - a Robust Unification-Based Incremental Semantic Chunker
- Purver and Kempson (2004)
Incremental parsing, or incremental grammar?

(the latter will require to learn about "Dynamic Syntax")