Incremental Processing Seminar: Seminar Papers and Summary

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Universität des Saarlandes

– SS 2011 –

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Overview

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
- Include any alternative interpretation or analysis
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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!

- 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
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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1. How to write a good Seminar Paper
2. Brief Summary of Seminar Topics
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
Incrementality and Prediction

- Staub and Clifton (2006): *Syntactic Prediction in Language Comprehension: Evidence From Either...or*
Local Coherence Effects

- Tabor et al. (2004)
  \textit{Effects of merely local syntactic coherence on sentence processing.}

- Gibson (2006)
  \textit{The interaction of top-down and bottom-up statistics in the resolution of syntactic category ambiguity.}
How about language production?

- Fernanda Ferreira (2000).
  
  *Syntax in Language Production: An Approach Using Tree-Adjoining Grammars*
Dialogue systems / interactions with agents

  *Towards Incremental Speech Generation in Dialogue Systems.*

  *Incremental dialogue processing in a micro-domain.*

  *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*

  *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

  *Incrementality in Deterministic Dependency Parsing*

- Menzel (2009)
  *Towards radically incremental parsing of natural language.*
Incremental Parsing with Tree-Adjoining Grammars (choose 3a or 3b)

3a:
- Libin Shen and Aravind Joshi (2005).
  *Incremental LTAG parsing*
  *Dynamic TAG and Lexical Dependencies*

3b:
- Demberg, Keller and Koller, (2011, under review)
  *Incremental, Predictive Parsing with Psycholinguistically Motivated Tree-Adjoining Grammar*
  *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")