

COGNITIVE SCIENCE 300 – DISCOURSE AND DIALOGUE PROCESSING

Course Syllabus
Cognitive Science Program - Simon Fraser University – Spring Semester 2005

INSTRUCTOR: **DR. MAITE TABOADA**

Class: Tuesdays 10:30-12:20, AQ 5027; Thursdays 10:30-11:20, WMX 2523

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(Check frequently for new material and announcements)

COURSE DESCRIPTION

This course provides an introduction to how discourse and dialogue are processed, both by humans and by machines. Discourse here is defined as the study of the organization of language above the sentence level, but also as any manifestation of language in context. Dialogue is defined as an instance of language that involves interaction between two or more people.

The course will provide an overview of the phenomena included in the study of discourse and dialogue, from linguistic, psycholinguistic and computational points of view. Students will read original and recent work in these areas, and will be encouraged to collect, analyze and process their own data.

PREREQUISITES

Lower division Cognitive Science requirements.

REQUIRED TEXT

Readings will be available at the beginning of the semester. Check also the course web page for on-line readings.

COURSE EXPECTATIONS

1. Students are expected to attend all classes and to arrive on time so that classes may begin promptly. Announcements will be made at the beginning and end of classes regarding the assigned readings and the expectations for exams and assignments.
2. Students are expected to have read all assigned readings *before* class. Because many students will be learning about a new field of study in this class, some of the materials and concepts may seem fairly complex. In such cases, students should read assigned readings and go over the lecture notes multiple times.
3. Students will be responsible for all materials covered in the assigned readings and lectures.
4. Students will be respectful of other students and the instructor. In particular, students will not talk while the instructor or another student is talkngedg

<http://www.reg.sfu.ca/calendar/General%20Regs.html#897900>

<http://www.sfu.ca/policies/teaching/index.htm>

If a student is found guilty of plagiarism or other form of academic dishonesty on a class paper, an assignment, or an exam, an academic dishonesty report will be written for that student. This report is filed in the department. The student receives a grade of zero for the paper, assignment, or exam. If more than one academic dishonesty report has been filed for a student, the case can be presented to the University Board on Student Discipline.

6. Please note that students requiring accommodations as a result of a disability must

96-100%	A+	Extraordinary performance	66-70%	C+	Satisfactory performance
91-95%	A	Excellent performance	61-65%	C	
86-90%	A-		Good performance	56-60%	C-
81-85%	B+	50-55%		D	
76-80%	B		< 50%	F	Unsatisfactory performance (fail)
71-75%	B-				

GRADE APPEALS

If a student wishes to contest the marking of an exam, assignment or paper, the instructor can agree to remark his/her entire exam at the instructor's convenience and not in front of the student. A grade reconsideration may raise the grade, lower the grade, or leave the grade unchanged, as stated in Policy T20.01, clause IV.2.

The only reason a grade change will be made is if there is an arithmetic error or if it has been determined that the exam, assignment or paper deserves a lower grade or a higher grade after it has been remarked.

The following are NOT reasons for reconsideration of a grade:

- The student is on probation
- The student wants to get into Business or any other program

4. ROLE OF CONTEXT IN INTERPRETATION OF DISCOURSE; SPEECH ACTS**Readings**

- Sadock, Jerrold. (2004). Speech acts. In L. R. Horn & G. Ward (Eds.), *The Handbook of Pragmatics* (pp. 53-73). Malden, MA: Blackwell.
- Mey, Jacob L. (2001). *Pragmatics: An Introduction* (2nd edition ed.). Malden, Mass: Blackwell. – Chapter 3. Context, implicature and reference. 39-66.
- Grice, H. P. (1975) Logic and conversation. In P. Cole and J. Morgan (eds.) *Syntax and Semantics. Vol. 3*. New York: Academic Press. 41-58.

Applications

- o Jurafsky, Daniel. (2004). Pragmatics and computational linguistics. In L. R. Horn & G. Ward (Eds.), *Handbook of Pragmatics* (pp. 578-604). Malden, MA: Blackwell.
- o Lin, Jimmy, Quan, Dennis, Sinha, Vineet, Bakshi, Karun, Huynh, David, Katz, Boris, et al. (2003). The role of context in question answering systems, *Proceedings of the 2003 Conference on Human Factors in Computing Systems*. Fort Lauderdale, Fl.
- o Creswell, Cassandre, & Kaiser, Elsi. (2004). The importance of discourse context for statistical Natural Language Generation, *Proceedings of the 5th SIGdial Workshop on Discourse and Dialogue at HLT-NAACL 2004*. Boston, Mass.

o Ryckebusch, Céline, & F5 -12ha, Dipe 23 Bak, On, 205, H, 0, 25h, David (2000), T7peech 0. TD

- Applications**
- o Higgins, D., Burstein, J., Marcu, D., & Gentile, C. (2004). Evaluating multiple aspects of coherence in student essays. In *Proceedings of the Annual Meeting of HLT/NAACL*, Boston, MA, May 2004.
 - o Miltsakaki, Eleni, & Kukich, Karen. (2004). Evaluation of text coherence for electronic essay scoring systems. *Natural Language Engineering*, 10(1), 25-55.
 - o Teufel, Simone, & Moens, Marc. (2000). What's yours and what's mine: Determining intellectual attribution in scientific text, *Proceedings of the Joint SIGDAT Conference on Empirical Methods in Natural Language Processing and Very Large Corpora*. Hong Kong.

9. DISCOURSE STRUCTURE

- Readings**
- Grosz, Barbara J., & Sidner, Candace L. (1986). Attention, intentions, and the structure of discourse. *Computational Linguistics*, 12(3), 175-204. (Review from previous topic)
 - Livia Polanyi (1988) A formal model of the structure of discourse. *Journal of Pragmatics*, 12:601-638, 1988.
 - Wolf, Florian, & Gibson, Edward. (2004). Representing discourse coherence: A corpus-based analysis, *Proceedings of the 20th International Conference on Computational Linguistics (COLING)*. Geneva, Switzerland.
 - Chafe, Wallace. (1996). Beyond beads on a string and branches on a tree. In A. E. Goldberg (Ed.), *Conceptual Structure, Discourse and Language* (pp. 49-65). Stanford, CA: CSLI.
- Applications**
- o Marcu, Daniel. (1999). Discourse trees are good indicators of importance in texts. In I. Mani & M. Maybury (Eds.), *Advances in Automatic Text Summarization* (pp. 123-136): The MIT Press.
 - o Jill Burstein, Daniel Marcu, and Kevin Knight (2003) Finding the WRITE stuff: automatic identification of discourse structure in student essays. *IEEE Intelligent Systems*, pp. 32-39, Jan/Feb, 2003.
 - o Marco Carbone, Gal, Ya'akov, Shieber, Stuart, Grosz, Barbara (2004) Unifying annotated discourse hierarchies to create a gold standard. *Proceedings of the 4th SIGdial Workshop on Discourse and Dialogue*. Cambridge, MA.

10. DISCOURSE MARKERS

- Readings**
- Fraser, B. (1999) What are discourse markers? *Journal of Pragmatics* 31. 931-52.
 - Schiffrin, D. (2001) Discourse markers: Language, meaning and context. In D. Schiffrin, D. Tannen and H. Hamilton (eds.) *The Handbook of Discourse Analysis*. Malden, Mass: Blackwell. 54-75.
- Applications**
- o Arnold, Jennifer E., Fagnano, Maria, & Tannenhaus, Michael K. (2003). Disfluencies signal thee, um, new information. *Journal of Psycholinguistic Research*, 32(1), 25-36.
 - o Janet Cahn (1992) An investigation into the correlation of cue phrases, unfilled pauses and the structuring of spoken discourse. In *Workshop on Prosody in Natural Speech*, pages 19-- and gold bech

Forensic linguistics

Shuy, R. (2001) Discourse analysis in the legal context. In D. Schiffrin, D. Tannen and H. Hamilton (eds.) *The Handbook of Discourse Analysis*. Malden, Mass: Blackwell. 437-452.

Discourse in educational settings

Temple Adger, C. (2001) Discourse in educational settings. In D. Schiffrin, D. Tannen and H. Hamilton (eds.) *The Handbook of Discourse Analysis*. Malden, Mass: Blackwell. 503-517.

Discourse across culture

Blum-Kulka, S., J. House and G. Kasper (1989) Investigating cross-cultural pragmatics: An introductory overview. In *Cross-Cultural Pragmatics: Requests and Apologies*. Norwood, NJ: Ablex. 1-34.

Discourse and aging

Hamilton, Heidi E. (2001) Discourse and aging. In D. Schiffrin, D. Tannen & H. E. Hamilton (Eds.), *The Handbook of Discourse Analysis* (pp. 568-589). Malden, Mass: Blackwell.

Discourse and gender

Kendall, Shari and Tannen, Deborah (2001) Discourse and gender. In D. Schiffrin, D. Tannen & H. E. Hamilton (Eds.), *The Handbook of Discourse Analysis* (pp. 548-567). Malden, Mass: Blackwell.

Social psychology

Harré, Rom (2001) The discursive turn in social psychology. In D. Schiffrin, D. Tannen & H. E. Hamilton (Eds.), *The Handbook of Discourse Analysis* (pp. 688-706). Malden, Mass: Blackwell.

Discourse and conflict

Kakavá, Christina (2001) Discourse and conflict. In D. Schiffrin, D. Tannen & H. E. Hamilton (Eds.), *The Handbook of Discourse Analysis* (pp. 650-670). Malden, Mass: Blackwell.