

Seminar – Wintersemester 2008/09: Automatisches Textverstehen für NLP Anwendungen

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23. Januar 2009

Termine, Themenvorschläge

09.10.2008

Einführung, Organisatorisches

16.10.2008

Überblick: Textstruktur, lokale und globale Kohärenz

optional: Halliday & Hasan (1976), Webber (2001), Kehler (2000), Moore & Wiemer-Hastings (2003), Jurafsky & Martin (2008)

Modell/Theorie: Centering

Poesio et al. (2004)

optional: Sidner (1983), Grosz et al. (1995), Grosz & Sidner (1998), Poesio et al. (2004)

23.10.2008

fällt aus, Michael Strube bei EMNLP'08

30.10.2008

Anwendung: Anaphernresolution (Centering)

Brennan et al. (1987)

optional: Kehler (1997), Strube (1998), Strube & Hahn (1999), Tetreault (2001)

Anwendung: Textqualität, Lesbarkeit (Centering, ML)

Miltsakaki & Kukich (2004)

optional: Miltsakaki & Kukich (2000), Higgins et al. (2004), Heilman et al. (2007), Miltsakaki & Troutt (2008)

06.11.2008

Anwendung: Informationsordnung (Centering, LSA, ML)

Lapata (2003), Karamanis et al. (2009)

optional: Foltz et al. (1998), Althaus et al. (2004), Karamanis et al. (2004), Lapata (2006), Karamanis (2007)

13.11.2008

Modell/Theorie: Lexikalische Kohäsion

optional: Morris & Hirst (1991)

Anwendung: Zusammenfassung

zur Vorbereitung: Barzilay & Elhadad (1999)

Referat: Umut Saygin: Barzilay & Elhadad (1999), Silber & McCoy (2002)

Modell/Theorie: Entity-grid-Modell

optional: Barzilay & Lapata (2005), Lapata & Barzilay (2005), Elsner et al. (2007), Barzilay & Lapata (2008)

20.11.2008

Modell/Theorie: Anaphernresolution, Koreferenzresolution

Referat: Pei Lu: Lappin & Leass (1994)

zur Vorbereitung: Lappin & Leass (1994) oder Soon et al. (2001)

optional: Linguistik: Hobbs (1978), Hobbs (1979), Beaver (2004), Kehler et al. (2008)

optional: Heuristiken: Kennedy & Boguraev (1996), Baldwin (1997)

27.11.2008

Modell/Theorie: Machine Learning für Koreferenzresolution

Michael Strube: Soon et al. (2001)

optional: Ng & Cardie (2002), Yang et al. (2003), Luo et al. (2004), Ponzetto & Strube (2006), Culotta et al. (2007), Haghighi & Klein (2007), Yang et al. (2008a), Yang et al. (2008b)

Anwendungen: Koreferenzresolution für Zusammenfassung

Referat: Carina Silberer: Steinberger et al. (2005), Steinberger et al. (2007)

zur Vorbereitung: Morton (2000)

optional: Baldwin & Morton (1998), Azzam et al. (1999), Boguraev & Kennedy (1999), Stuckhardt (2003)

04.12.2008

Anwendungen: Koreferenzresolution für *Question Answering*

zur Vorbereitung: Watson et al. (2003)

Referat: Nicoleta Szegedi: Morton (1999), Watson et al. (2003)

11.12.2008

Modell/Theorie: Textsegmentierung

zur Vorbereitung: Hearst (1997)

Referat: Armin Schmidt: Choi (2000), Galley et al. (2003)

optional: Passonneau & Litman (1997), Hearst (1997), Beeferman et al. (1999), Reynar (1999), Pevzner & Hearst (2002)

optional: **Anwendungen: Segmentierung für Zusammenfassung und *Question Answering***

optional: Goldstein et al. (2000), Teufel & Moens (2002), Stokes et al. (2004), Narayanan & Harabagiu (2004)

18.12.2008

Modell/Theorie: Diskursstruktur

Referat: Hailian Jiang: Hobbs (1985)

zur Vorbereitung: Hobbs (1985)

optional: Hobbs (1979), Hobbs (1982), Grosz & Sidner (1986), Hobbs et al. (1993), Walker (1996), Kehler (2004), Kehler et al. (2008)

08.01.2009

zur Vorbereitung: Mann & Thompson (1987) oder Mann & Thompson (1988)

Referat: Căcilia Zirn: Anwendungen: Diskursstruktur und Zusammenfassung

Marcu (1997), Marcu (1999), Marcu (2000)

15.01.2009

Anwendungen: Diskursstruktur und Question Answering

zur Vorbereitung: Verberne (2007b)

Referat: Alex Judea: Verberne et al. (2007), Verberne (2007a)

optional: Prasad & Joshi (2008)

Modell/Theorie: Temporale Diskursrelationen

zur Vorbereitung: Lapata & Lascarides (2004)

Referat: Johannes Reichel: Lapata & Lascarides (2006)

optional: Moens & Steedman (1988), Webber (1988), Passonneau (1988), Hwang & Schubert (1992), Hitzeman et al. (1995), Mani & Wilson (2000), Lapata & Lascarides (2006), Mani et al. (2006)

22.01.2009

Referat: Lennart Ritterhoff: Modell/Theorie: DLTAG Webber (2004), Prasad & Joshi (2008)

zur Vorbereitung: Webber & Joshi (1998)

Modell/Theorie: Diskursstruktur

optional: Mann & Thompson (1988), Moore & Pollack (1992), Moser & Moore (1996), Marcu & Echihabi (2002), Blair-Goldensohn et al. (2007), Sporleder & Lascarides (2008)

Modell/Theorie: RST vs. PDTB vs. Wolf

optional: Marcu et al. (1999), Carlson et al. (2003), Webber (2006), Wolf & Gibson (2005)

Modell/Theorie: Diskurskonnektoren

optional: Knott & Mellish (1996), Knott & Sanders (1998), Hutchinson (2004), Wellner & Pustejovsky (2007)

29.01.2009

evtl. **Modell/Theorie: Argumentation** Cohen (1987), Reed & Long (1998), Katzav & Reed (2008)

Diskussion, Zusammenfassung, Rückblick – zur Vorbereitung (schriftlich): Was ist der Status von Diskursmodellen in der automatischen Sprachverarbeitung? Für welche Anwendungen konnten sie erfolgreich eingesetzt werden? Für welche nicht? Für welche Anwendungen könnten Diskursmodelle in fünf Jahren eingesetzt werden?

Weitere Themenvorschläge:

Zuverlässigkeit (reliability) der Annotation: Carletta (1996), Carletta et al. (1997), Di Eugenio & Glass (2004), Craggs & McGee Wood (2005), Reidsma & Carletta (2008), Artstein & Poesio (ress)

SDRT (Segmented Discourse Representation Theory): Schilder (1998), Lascarides & Asher (2007)

Bemerkungen

Leistungsnachweise: Lektüre und aktive Teilnahme (1/3), Referat (1/3), Hausarbeit (1/3). Hausarbeit: 8-10 Seiten (Proseminar), 12-15 Seiten (Hauptseminar) inkl. Bibliographie. Die Hausarbeit kann auch per Email an mich geschickt werden, aber *nicht* als Word-Datei sondern nur als PDF-Datei. – Ich empfehle, wissenschaftliche Texte mit Latex und Bibtex zu verfassen.

Regelmäßige Teilnahme (d.i. nicht mehr als zweimal unentschuldigtes Fehlen) ist Voraussetzung für Scheinerwerb. Ich bitte um Abgabe von jeweils zwei Fragen (!) zu einem Papier, das in der Sitzung vorgestellt wird, entweder per Email bis spätestens 15 Uhr am Tag der Sitzung oder schriftlich direkt vor der Sitzung. Dies geht in die Bewertung für aktive Teilnahme am Seminar ein.

Literatur: Viele Papiere können direkt aus der *ACL Anthology* kopiert werden (<http://acl.ldc.upenn.edu/>), insbesondere alle Papiere der (*E/NA*)*ACL*-, *Coling*- und *EMNLP*-Konferenzen, alle Workshops, die im Rahmen dieser Konferenzen veranstaltet wurden und die Zeitschrift *Computational Linguistics*.

Sprechstunde: Auf Vereinbarung (Email, Telefon) bei mir im Büro, ggf. auch im Anschluß an das Seminar.

Hausarbeiten:

maximal 8-10 Seiten (Proseminar), 12-15 Seiten (Hauptseminar) inkl. Abbildungen, inkl. Literaturverzeichnis

Inhalt: Fokus auf das vorgestellte Papier; NICHT *Related Work*-Kapitel referieren, wenn die entsprechenden Papiere nicht gelesen wurden; Evaluierung berichten; WICHTIG: mit eigener Meinung oder Bewertung abschließen.

Stil: Wissenschaftlichkeit drückt sich nicht durch lange, komplizierte Sätze und exzessiven Gebrauch von Fremdwörtern aus – deshalb bitte kurze Sätze, einfache Sprache; Hausarbeiten vor der Abgabe Korrektur lesen oder Korrektur lesen lassen (s. auch *Dos and donts: Hinweise zur Abfassung wissenschaftlicher Arbeiten* von Prof. Frank – http://www.cl.uni-heidelberg.de/~frank/materials/dos_and_donts.pdf).

Abgabetermin: bis spätestens 15. Februar 2009; per Email als PDF-Datei (kein Word!) oder ausgedruckt per Post – Matrikelnummer nicht vergessen!

Literatur

- Althaus, Ernst, Nikiforos Karamanis & Alexander Koller (2004). Computing locally coherent discourses. In *Proceedings of the 42nd Annual Meeting of the Association for Computational Linguistics*, Barcelona, Spain, 21–26 July 2004, pp. 400–407.
- Artstein, Ron & Massimo Poesio (in press). Inter-coder agreement for computational linguistics. *Computational Linguistics*.
- Azzam, Saliha, Kevin Humphreys & Robert Gaizauskas (1999). Using coreference chains for text summarization. In *Proceedings of the Workshop on Coreference and Its Applications*, College Park, Md., 22 June 1999, pp. 77–84.
- Baldwin, Breck (1997). CogNIAC: High precision coreference with limited knowledge and linguistic resources. In *Proceedings of the ACL Workshop on Operational Factors in Practical, Robust Anaphora Resolution for Unrestricted Text, Madrid, Spain, July 1997*, pp. 38–45.
- Baldwin, Breck & Thomas S. Morton (1998). Dynamic coreference-based summarization. In *Proceedings of the 3rd Conference on Empirical Methods in Natural Language Processing*, Granada, Spain, June 1998, p. ??
- Barzilay, Regina & Michael Elhadad (1999). Using lexical chains for text summarization. In Inderjeet Mani & Mark T. Maybury (Eds.), *Advances in Automatic Text Summarization*, pp. 111–121. Cambridge, Mass.: MIT Press.
- Barzilay, Regina & Mirella Lapata (2005). Modeling local coherence: An entity-based approach. In *Proceedings of the 43rd Annual Meeting of the Association for Computational Linguistics*, Ann Arbor, Mich., 25–30 June 2005, pp. 141–148.
- Barzilay, Regina & Mirella Lapata (2008). Modeling local coherence: An entity-based approach. *Computational Linguistics*, 34(1):1–34.
- Beaver, David L. (2004). The optimization of discourse anaphora. *Linguistics and Philosophy*, 27(1):3–56.
- Beeferman, Doug, Adam Berger & John Lafferty (1999). Statistical models for text segmentation. *Machine Learning*, 34:177–210.
- Blair-Goldensohn, Sascha, Kathleen R. McKeown & Owen C. Rambow (2007). Building and refining rhetorical-semantic relation models. In *Proceedings of Human Language Technologies 2007: The Conference of the North American Chapter of the Association for Computational Linguistics*, Rochester, N.Y., 22–27 April 2007, pp. 428–435.
- Boguraev, Branimir & Christopher Kennedy (1999). Saliency-based content characterisation of text documents. In Inderjeet Mani & Mark T. Maybury (Eds.), *Advances in Automatic Text Summarization*, pp. 99–110. Cambridge, Mass.: MIT Press.
- Brennan, Susan E., Marilyn W. Friedman & Carl J. Pollard (1987). A centering approach to pronouns. In *Proceedings of the 25th Annual Meeting of the Association for Computational Linguistics*, Stanford, Cal., 6–9 July 1987, pp. 155–162.
- Carletta, Jean (1996). Assessing agreement on classification tasks: The kappa statistic. *Computational Linguistics*, 22(2):249–254.
- Carletta, Jean, Amy Isard, Stephen Isard, Jacqueline Kowtko, Gwyneth Doherty-Sneddon & Anne Anderson (1997). The reliability of a dialogue structure coding scheme. *Computational Linguistics*, 23(1):13–31.
- Carlson, Lynn, Daniel Marcu & Mary Ellen Okunowski (2003). Building a discourse-tagged corpus in the framework of Rhetorical Structure Theory. In J. van Kuppevelt & R. Smith (Eds.), *Current Directions in Discourse and Dialogue*, pp. 85–112. Dordrecht, The Netherlands: Kluwer.
- Choi, Freddy Y. Y. (2000). Advances in domain independent linear text segmentation. In *Proceedings of the 1st Conference of the North American Chapter of the Association for Computational Linguistics*, Seattle, Wash., 29 April – 3 May 2000, pp. 26–33.
- Cohen, Robin (1987). Analyzing the structure of argumentative discourse. *Computational Linguistics*, 13(1):11–24.
- Craggs, Richard & Mary McGee Wood (2005). Evaluating discourse and dialogue coding schemes. *Computational Linguistics*, 31(3):289–295.
- Culotta, Aron, Michael Wick & Andrew McCallum (2007). First-order probabilistic models for coreference resolution. In *Proceedings of Human Language Technologies 2007: The Conference of the North American Chapter of the Association for Computational Linguistics*, Rochester, N.Y., 22–27 April 2007, pp. 81–88.
- Di Eugenio, Barbara & Michael Glass (2004). The kappa statistic: A second look. *Computational Linguistics*, 30(1):95–101.
- Elsner, Micha, Joseph Austerweil & Eugene Charniak (2007). A unified local and global model for discourse coherence. In *Proceedings of Human Language Technologies 2007: The Conference of the North American Chapter of the Association for Computational Linguistics*, Rochester, N.Y., 22–27 April 2007, pp. 436–443. Read this version: <http://www.cs.brown.edu/~melsner/order.pdf>.
- Foltz, Peter, Walter Kintsch & Thomas Landauer (1998). The measurement of textual coherence with latent semantic analysis. *Discourse Processes*, 25(2):285–307.

- Galley, Michel, Kathleen R. McKeown, Eric Fosler-Lussier & Hongyan Jing (2003). Discourse segmentation of multi-party conversation. In *Proceedings of the 41st Annual Meeting of the Association for Computational Linguistics*, Sapporo, Japan, 7–12 July 2003, pp. 562–569.
- Goldstein, Jade, Vibhu Mittal, Jaime Carbonell & Mark Kantrowitz (2000). Multi-document summarization by sentence extraction. In *Proceedings of the Workshop on Automatic Summarization at ANLP/NAACL 2000*, Seattle, Wash., 30 April 2000, pp. 40–48.
- Grosz, Barbara J., Aravind K. Joshi & Scott Weinstein (1995). Centering: A framework for modeling the local coherence of discourse. *Computational Linguistics*, 21(2):203–225.
- Grosz, Barbara J. & Candace L. Sidner (1986). Attention, intentions, and the structure of discourse. *Computational Linguistics*, 12(3):175–204.
- Grosz, Barbara J. & Candace L. Sidner (1998). Lost intuitions and forgotten intentions. In M.A. Walker, A.K. Joshi & E.F. Prince (Eds.), *Centering in Discourse*, pp. 39–51. Oxford, U.K.: Oxford University Press.
- Haghighi, Aria & Dan Klein (2007). Unsupervised coreference resolution in a nonparametric Bayesian model. In *Proceedings of the 45th Annual Meeting of the Association for Computational Linguistics*, Prague, Czech Republic, 23–30 June 2007, pp. 848–855.
- Halliday, M. A. K. & Ruqaiya Hasan (1976). *Cohesion in English*. London, U.K.: Longman.
- Hearst, Marti A. (1997). TextTiling: Segmenting text into multi-paragraph subtopic passages. *Computational Linguistics*, 23(1):33–64.
- Heilman, Michael J., Kevyn Collins-Thompson, Jamie Callan & Maxine Eskenazi (2007). Combining lexical and grammatical features to improve readability measures for first and second language texts. In *Proceedings of Human Language Technologies 2007: The Conference of the North American Chapter of the Association for Computational Linguistics*, Rochester, N.Y., 22–27 April 2007, pp. 460–467.
- Higgins, Derrick, Jill Burstein, Daniel Marcu & Claudia Centile (2004). Evaluating multiple aspects of coherence in student essays. In *Proceedings of the Human Language Technology Conference of the North American Chapter of the Association for Computational Linguistics*, Boston, Mass., 2–7 May 2004, pp. 185–192.
- Hitzeman, Janet, Marc Moens & Claire Grover (1995). Algorithms for analysing the temporal structure of discourse. In *Proceedings of the 7th Conference of the European Chapter of the Association for Computational Linguistics*, Dublin, Ireland, 27–31 March 1995, pp. 253–260.
- Hobbs, Jerry R. (1978). Resolving pronominal references. *Lingua*, 44:311–338.
- Hobbs, Jerry R. (1979). Coherence and coreference. *Cognitive Science*, 3:67–90.
- Hobbs, Jerry R. (1982). Towards an understanding of coherence in discourse. In W. Lehnert & M. Ringle (Eds.), *Strategies for Natural Language Processing*, pp. 223–243. Hillsdale, NJ: L. Erlbaum.
- Hobbs, Jerry R. (1985). *On the coherence and structure of discourse*. Technical Report CSLI-85-37: Stanford: SRI/CSLI.
- Hobbs, Jerry R., Mark E. Stickel, Douglas E. Appelt & Paul Martin (1993). Interpretation as abduction. *Artificial Intelligence*, 63:69–142.
- Hutchinson, Ben (2004). Acquiring the meaning of discourse markers. In *Proceedings of the 42nd Annual Meeting of the Association for Computational Linguistics*, Barcelona, Spain, 21–26 July 2004, pp. 685–692.
- Hwang, Chung Hee & Lenhart K. Schubert (1992). Tense trees as the “fine structure” of discourse. In *Proceedings of the 30th Annual Meeting of the Association for Computational Linguistics*, Newark, Del., 28 June – 2 July 1992, pp. 232–240.
- Jurafsky, Daniel & James H. Martin (2008). *Speech and Language Processing* (2nd. ed.), Chp. 21. Computational Discourse, pp. 681–723. Upper Saddle River, N.J.: Prentice Hall.
- Karamanis, Nikiforos (2007). Supplementing entity coherence with local rhetorical relations for information ordering. *Journal of Logic, Language and Information*, 16(4):445–464.
- Karamanis, Nikiforos, Chris Mellish, Massimo Poesio & Jon Oberlander (2009). Evaluating centering for information ordering using corpora. *Computational Linguistics*, ??(??):?? To appear (available at: <http://www.cs.tcd.ie/Nikiforos.Karamanis/publications/papers/CL08.pdf>).
- Karamanis, Nikiforos, Massimo Poesio, Chris Mellish & Jon Oberlander (2004). Evaluating centering-based metrics of coherence for text structuring using a reliably annotated corpus. In *Proceedings of the 42nd Annual Meeting of the Association for Computational Linguistics*, Barcelona, Spain, 21–26 July 2004, pp. 392–393.
- Katzav, Joel & Chris Reed (2008). Modelling argument recognition and reconstruction. *Journal of Pragmatics*, 40:155–172.
- Kehler, Andrew (1997). Current theories of centering for pronoun interpretation: A critical evaluation. *Computational Linguistics*, 23(3):467–475.
- Kehler, Andrew (2000). Discourse. In Daniel Jurafsky & James H. Martin (Eds.), *Speech and Language Processing*, pp. 669–718. Upper Saddle River, N.J.: Prentice Hall.
- Kehler, Andrew (2004). Discourse coherence. In L.R. Horn & G. Ward (Eds.), *Handbook of Pragmatics*, p. ?? Oxford,

- U.K.: Basil Blackwell.
- Kehler, Andrew, Laura Kertz, Hannah Rohde & Jeffrey R. Elman (2008). Coherence and coreference revisited. *Journal of Semantics*, 25(1):1–44.
- Kennedy, Christopher & Branimir Boguraev (1996). Anaphora for everyone: Pronominal anaphora resolution without a parser. In *Proceedings of the 16th International Conference on Computational Linguistics*, Copenhagen, Denmark, 5–9 August 1996, Vol. 1, pp. 113–118.
- Knott, Alistair & Chris Mellish (1996). A feature-based account of the relations signalled by sentence and clause connectives. *Language and Speech*, 39(2-3):143–183.
- Knott, Alistair & Ted Sanders (1998). The classification of coherence relations and their linguistic markers. *Journal of Pragmatics*, 30(2):135–175.
- Lapata, Maria (2003). Probabilistic text structuring: Experiments with sentence ordering. In *Proceedings of the 41st Annual Meeting of the Association for Computational Linguistics*, Sapporo, Japan, 7–12 July 2003, pp. 545–552.
- Lapata, Mirella (2006). Automatic evaluation of information ordering: Kendall’s tau. *Computational Linguistics*, 32(4):471–484.
- Lapata, Mirella & Regina Barzilay (2005). Automatic evaluation of text coherence: Models and representations. In *Proceedings of the 19th International Joint Conference on Artificial Intelligence*, Edinburgh, Scotland, 30 July – 5 August 2005, pp. 1085–1090.
- Lapata, Mirella & Alex Lascarides (2004). Inferring sentence-internal temporal relations. In *Proceedings of the Human Language Technology Conference of the North American Chapter of the Association for Computational Linguistics*, Boston, Mass., 2–7 May 2004, pp. 153–160.
- Lapata, Mirella & Alex Lascarides (2006). Learning sentence-internal temporal relations. *Journal of Artificial Intelligence Research*, 27:85–117.
- Lappin, Shalom & Herbert J. Leass (1994). An algorithm for pronominal anaphora resolution. *Computational Linguistics*, 20(4):535–561.
- Lascarides, Alex & Nicholas Asher (2007). Segmented discourse representation theory: Dynamic semantics with discourse structure. In H. Bunt & R. Muskens (Eds.), *Computing Meaning: Volume 3*, pp. 87–124. Heidelberg, Germany: Springer.
- Luo, Xiaoqiang, Abe Ittycheriah, Hongyan Jing, Nanda Kambhatla & Salim Roukos (2004). A mention-synchronous coreference resolution algorithm based on the Bell Tree. In *Proceedings of the 42nd Annual Meeting of the Association for Computational Linguistics*, Barcelona, Spain, 21–26 July 2004, pp. 136–143.
- Mani, Inderjeet, Marc Verhagen, Ben Wellner, Chong Min Lee & James Pustejovsky (2006). Machine learning of temporal relations. In *Proceedings of the 21st International Conference on Computational Linguistics and 44th Annual Meeting of the Association for Computational Linguistics*, Sydney, Australia, 17–21 July 2006, pp. 753–760.
- Mani, Inderjeet & George Wilson (2000). Robust temporal processing. In *Proceedings of the 38th Annual Meeting of the Association for Computational Linguistics*, Hong Kong, China, 1–8 August 2000, pp. 69–76.
- Mann, William C. & Sandra A. Thompson (1987). *A theory of text organisation*. Technical Report ISI/RS-87-190: Information Sciences Institute at the University of Southern California, Marina del Rey, Cal. Available at: http://www.sfu.ca/rst/pdfs/Mann_Thompson_1987.pdf.
- Mann, William C. & Sandra A. Thompson (1988). Rhetorical structure theory. Toward a functional theory of text organization. *Text*, 8(3):243–281.
- Marcu, Daniel (1997). The rhetorical parsing of natural language texts. In *Proceedings of the 35th Annual Meeting of the Association for Computational Linguistics and of the 8th Conference of the European Chapter of the Association for Computational Linguistics*, Madrid, Spain, 7–12 July 1997, pp. 365–372.
- Marcu, Daniel (1999). Discourse trees are good indicators of importance in text. In I. Mani & M.T. Maybury (Eds.), *Advances in Automatic Text Summarization*, pp. 123–136. Cambridge, Mass.: MIT Press.
- Marcu, Daniel (2000). The rhetorical parsing of unrestricted texts: A surface-based approach. *Computational Linguistics*, 26(3):395–448.
- Marcu, Daniel, Estibaliz Amorrortu & Magdalena Romera (1999). Experiments in constructing a corpus of discourse trees. In *Proceedings of the Workshop Towards Standards and Tools for Discourse Tagging*, College Park, Md., 21 June 1999, pp. 48–57.
- Marcu, Daniel & Abdessamad Echihabi (2002). An unsupervised approach to recognizing discourse relations. In *Proceedings of the 40th Annual Meeting of the Association for Computational Linguistics*, Philadelphia, Penn., 7–12 July 2002, pp. 368–375.
- Miltsakaki, Eleni & Karen Kukich (2000). The role of centering theory’s rough-shifts in the teaching and evaluation of writing skills. In *Proceedings of the 38th Annual Meeting of the Association for Computational Linguistics*, Hong Kong, China, 1–8 August 2000, pp. 408–415.
- Miltsakaki, Eleni & Karen Kukich (2004). Evaluation of text coherence for electronic essay scoring systems. *Natural*

- Language Engineering*, 10(1):25–55.
- Miltsakaki, Eleni & Audrey Troutt (2008). Real-time web text classification and analysis of reading difficulty. In *Proceedings of the 3rd Workshop on Innovative Use of NLP for Building Educational Applications at ACL'08*, Columbus, Ohio, 19 June 2008, pp. 89–97.
- Moens, Marc & Marc Steedman (1988). Temporal ontology and temporal reference. *Computational Linguistics*, 14(2):15–28.
- Moore, Johanna D. & Martha E. Pollack (1992). A problem for RST: The need for multi-level discourse analysis. *Computational Linguistics*, 18(4):537–544.
- Moore, Johanna D. & Peter Wiemer-Hastings (2003). Discourse in Computational Linguistics and Artificial Intelligence. In A. Graesser, M. Gernsbacher & S. Goldman (Eds.), *Handbook of Discourse Processes*, pp. 439–486. Mahwah, N.J.: Lawrence Erlbaum.
- Morris, Jane & Graeme Hirst (1991). Lexical cohesion computed by thesaural relations as an indicator of the structure of text. *Computational Linguistics*, 17(1):21–48.
- Morton, Thomas S. (1999). Using coreference in question answering. In *Proceedings of the Eighth Text REtrieval Conference*, Gaithersburg, Maryland, November 16–19, 1999, pp. 85–89.
- Morton, Thomas S. (2000). Coreference for NLP applications. In *Proceedings of the 38th Annual Meeting of the Association for Computational Linguistics*, Hong Kong, China, 1–8 August 2000, pp. 173–180.
- Moser, Megan & Johanna Moore (1996). Toward a synthesis of two accounts of discourse structure. *Computational Linguistics*, 22(3):409–419.
- Narayanan, Srinivas & Sanda A. Harabagiu (2004). Answering questions using advanced semantics and probabilistic inference. In *Proceedings of the Pragmatics of Question Answering at HLT-NAACL 2004*, Boston, Mass., USA, 6–7 May 2004, pp. 10–16.
- Ng, Vincent & Claire Cardie (2002). Improving machine learning approaches to coreference resolution. In *Proceedings of the 40th Annual Meeting of the Association for Computational Linguistics*, Philadelphia, Penn., 7–12 July 2002, pp. 104–111.
- Passonneau, Rebecca & Diane J. Litman (1997). Discourse segmentation by human and automated means. *Computational Linguistics*, 23(1):103–139.
- Passonneau, Rebecca J. (1988). A computational model of the semantics of tense and aspect. *Computational Linguistics*, 14(2):44–60.
- Pevzner, Lev & Marti Hearst (2002). A critique and improvement of an evaluation metric for text segmentation. *Computational Linguistics*, 28(1):19–36.
- Poesio, Massimo, Rosemary Stevenson, Barbara Di Eugenio & Janet Hitzeman (2004). Centering: A parametric theory and its instantiations. *Computational Linguistics*, 30(3). 309–363.
- Ponzetto, Simone Paolo & Michael Strube (2006). Exploiting semantic role labeling, WordNet and Wikipedia for coreference resolution. In *Proceedings of the Human Language Technology Conference of the North American Chapter of the Association for Computational Linguistics*, New York, N.Y., 4–9 June 2006, pp. 192–199.
- Prasad, Rashmi & Aravind Joshi (2008). A discourse-based approach to generating why-questions from texts. In *Proceedings of the Workshop on the Question Generation Shared Task and Evaluation Challenge*, Arlington, Va., September 2008, p. ?? download at: <http://www.cis.upenn.edu/~rjprasad/papers/prasad-joshi-qg08.pdf>.
- Reed, Chris & Derek Long (1998). Generating the structure of an argument. In *Proceedings of the 17th International Conference on Computational Linguistics and 36th Annual Meeting of the Association for Computational Linguistics*, Montréal, Québec, Canada, 10–14 August 1998, pp. 1091–1097.
- Reidsma, Dennis & Jean Carletta (2008). Reliability measurement without limits. *Computational Linguistics*, 34(3).
- Reynar, Jeffrey C. (1999). Statistical models for topic segmentation. In *Proceedings of the 37th Annual Meeting of the Association for Computational Linguistics*, College Park, Md., 20–26 June 1999, pp. 357–364.
- Schilder, Frank (1998). An underspecified segmented discourse representation theory (USDRT). In *Proceedings of the 17th International Conference on Computational Linguistics and 36th Annual Meeting of the Association for Computational Linguistics*, Montréal, Québec, Canada, 10–14 August 1998, pp. 1188–1192.
- Sidner, Candace L. (1983). Focusing in the comprehension of definite anaphora. In M. Brady & R.C. Berwick (Eds.), *Computational Models of Discourse*, pp. 267–330. Cambridge, Mass.: MIT Press.
- Silber, Gregory H. & Kathleen F. McCoy (2002). Efficiently computed lexical chains as an intermediate representation for automatic text summarization. *Computational Linguistics*, 28(4):487–496.
- Soon, Wee Meng, Hwee Tou Ng & Daniel Chung Yong Lim (2001). A machine learning approach to coreference resolution of noun phrases. *Computational Linguistics*, 27(4):521–544.
- Sporleder, Caroline & Alex Lascarides (2008). Using automatically labelled examples to classify rhetorical relations: An assessment. *Natural Language Engineering*, 14(3):369–416.
- Steinberger, Josef, Mijail A. Kabadjov & Massimo Poesio (2005). Improving LSA-based summarization with anaphora resolution. In *Proceedings of the Human Language Technology Conference and the 2005 Conference on Empirical*

- Methods in Natural Language Processing*, Vancouver, B.C., Canada, 6–8 October 2005, pp. 1–8.
- Steinberger, Josef, Massimo Poesio, Mijail A. Kabadjov & Karel Ježek (2007). Two uses of anaphora resolution in summarization. *Information Processing and Management*, 43(6):1663–1680.
- Stokes, Nicola, Joe Carthy & Alan F. Smeaton (2004). A lexical cohesion based news story segmentation system. *AI Communications*, 17(1):3–12.
- Strube, Michael (1998). Never look back: An alternative to centering. In *Proceedings of the 17th International Conference on Computational Linguistics and 36th Annual Meeting of the Association for Computational Linguistics*, Montréal, Québec, Canada, 10–14 August 1998, Vol. 2, pp. 1251–1257.
- Strube, Michael & Udo Hahn (1999). Functional centering: Grounding referential coherence in information structure. *Computational Linguistics*, 25(3):309–344.
- Stuckhardt, Roland (2003). Coreference-based summarization and question answering: A case for high precision anaphor resolution. In *Proceedings of the 2003 International Symposium on Reference Resolution and Its Applications to Question Answering and Summarization*, Venice, Italy, 23–24 June 2003, pp. 33–42.
- Tetreault, Joel R. (2001). A corpus-based evaluation of centering and pronoun resolution. *Computational Linguistics*, 27(4):507–520.
- Teufel, Simone & Marc Moens (2002). Summarizing scientific articles: Experiments with relevance and rhetorical status. *Computational Linguistics*, 28(4):409–445.
- Verberne, Suzan (2007a). Evaluating answer extraction for Why-QA using RST-annotated Wikipedia texts. In *Proceedings of the Twelfth ESSLLI Student Session*, Dublin, Ireland, 6–17 August 2007, pp. 255–266.
- Verberne, Suzan (2007b). Paragraph retrieval for why-question answering. Exploiting discourse structure for intelligent paragraph retrieval for why-QA. In *Proceedings of the 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* Amsterdam, The Netherlands, 23–27 July 2007, pp. 922–926.
- Verberne, Suzan, Lou Boves, Nelleke Oostdijk & Peter-Arno Coppen (2007). Discourse-based answering of why-questions. *Traitement Automatique des Langues*, 47(2):21–41.
- Walker, Marilyn A. (1996). Limited attention and discourse structure. *Computational Linguistics*, 22(2):255–264.
- Watson, Rebecca, Judita Preiss & Ted Briscoe (2003). The contribution of domain-independent robust pronominal anaphora resolution to open-domain question-answering. In *Proceedings of the 2003 International Symposium on Reference Resolution and Its Applications to Question Answering and Summarization*, Venice, Italy, 23–24 June 2003, pp. 75–82.
- Webber, Bonnie (2004). D-LTAG: Extending lexicalized TAG to discourse. *Cognitive Science*, 28(5):751–779.
- Webber, Bonnie (2006). Accounting for discourse relations: Constituency and dependency. In Miriam Butt, Mary Dalrymple & Tracy King (Eds.), *Intelligent Linguistic Architectures*, pp. 339–360. Stanford: CSLI Publications.
- Webber, Bonnie L. (1988). Tense as discourse anaphor. *Computational Linguistics*, 14(2):61–73.
- Webber, Bonnie L. (2001). Computational aspects of discourse and dialogue. In D. Schiffrin, D. Tannen & H. Hamilton (Eds.), *The Handbook of Discourse Analysis*, p. ??: Blackwell Publishers.
- Webber, Bonnie L. & Aravind K. Joshi (1998). Anchoring a lexicalized Tree-Adjoining Grammar for discourse. In *COLING-ACL '98 Workshop on Discourse Relations and Discourse Markers*, Montréal, Québec, Canada, 15 August, 1998, pp. 86–92.
- Wellner, Ben & James Pustejovsky (2007). Automatically identifying the arguments of discourse connectives. In *Proceedings of the 2007 Joint Conference on Empirical Methods in Natural Language Processing and Computational Language Learning*, Prague, Czech Republic, 28–30 June 2007, pp. 92–101.
- Wolf, Florian & Edward Gibson (2005). Representing discourse coherence: A corpus-based study. *Computational Linguistics*, 31(2):249–287.
- Yang, Xiaofeng, Jian Su, Jun Lang, Chew Lim Tan, Ting Liu & Sheng Li (2008a). An entity-mention model for coreference resolution with Inductive Logic Programming. In *Proceedings of the 46th Annual Meeting of the Association for Computational Linguistics: Human Language Technologies*, Columbus, Ohio, 15–20 June 2008, pp. 843–851.
- Yang, Xiaofeng, Jian Su & Chew Lim Tan (2008b). A twin-candidate model for learning-based anaphora resolution. *Computational Linguistics*, 34(3):327–356.
- Yang, Xiaofeng, Guodung Zhou, Jian Su & Chew Lim Tan (2003). Coreference resolution using competition learning approach. In *Proceedings of the 41st Annual Meeting of the Association for Computational Linguistics*, Sapporo, Japan, 7–12 July 2003, pp. 176–183.