Barbara A. Fox
Curriculum Vitae

April, 2009

Dept. of Linguistics
University of Colorado
Boulder, CO 80309

Education

Ph.D. Linguistics University of California, Los Angeles, 1984
M.A.   Linguistics University of California, Los Angeles. 1981
B.A.   Linguistics University of California, Los Angeles, 1980

Teaching Experience

2004-2006   Chair, Department of Linguistics
1999-2003   Chair, Department of Linguistics
1998-   Professor, University of Colorado
1991- 1998   Associate Professor, University of Colorado
1984-1991   Assistant Professor, University of Colorado
                      Dept. of Linguistics
1982   Instructor, California State College,
                      San Bernardino, Dept. of English

Publications

Books

Thompson, S., Fox, B., and E. Couper-Kuhlen. To appear. *Building Responsive Actions*.
     Cambridge: Cambridge University Press.

Ford, C., Fox, B., and S. Thompson (Eds). 2002. *The Language of Turns and Sequences*.
     New York: Oxford University Press.

Fox, B., Jurafsky, D., and L. Michaelis (Eds). 1998. *Cognition, Language and Discourse*
     Stanford: CSLI.

Fox, B. (Ed.) 1996. *Studies in Anaphora*. Amsterdam: John Benjamins.

Fox, B. and P. Hopper (Eds). 1994. *Voice: Form and Function*. Amsterdam: John Benjamins.

Fox, B. 1993. *The Human Tutorial Dialogue Project*. New Jersey: Lawrence Erlbaum.

Fox, B. 1987. *Discourse Structure and Anaphora*. Cambridge: Cambridge University Press.

Articles in refereed journals

Fox, B. and S. Thompson. Responses to *wh*-questions in English conversation. Accepted. *Research on Language and Social Interaction*.

Fox, B., Maschler, S., and S. Uhmann. Accepted. A cross-linguistic study of self-repair: evidence from English, German and Hebrew. *Journal of Pragmatics*.

Fox, B. 2007. Principles shaping grammatical practices. *Discourse Studies* 9: 299-318.

Fox, B. and S. Thompson. 2007. Relative clauses in English conversation: relativizers, frequency and the notion of construction. *Studies in Language* 31: 293-326.

Fox, B. 2001. Evidentiality: Authority, responsibility, and entitlement in English conversation. *Journal of Linguistic Anthropology* 11: 1-29.

Fox, B., and S. Thompson. 1990. A discourse explanation of the grammar of relative clauses in English conversation *Language* 66: 51-64.

Fox, B. 1988. Anaphora in popular stories: Implications for narrative theory. *Empirical Studies of the Arts* 6.2: 149-169. (Invited submission)

Fox, B. 1987. The noun phrase accessibility hierarchy revisited: subject primacy or the absolutive hypothesis. *Language* 63: 856-870.

Fox, B. 1987. Interactional reconstruction in real-time language processing." *Cognitive Science* 11: 365-387.

Fox, B. 1987. Morphosyntactic markedness and discourse structure. *Journal of Pragmatics*.

Fox, B. 1986. Local patterns and general principles in cognitive processes. *Text* 16.1: 25-51.

Fox, B. 1985. Discourse continuity and word-order inversion in Tagalog. *Text* 5: 39-54.

Cooreman, A., Fox, B., and T. Givon. 1984. The discourse definition of ergativity. *Studies in Language* 8: 1-34.

Fox, B. 1982. Figure Ground in Language. *Glossa* 16.2: 149-180.

Fox, B. 1981. Body part syntax. *Studies in Language* 5.3: 323-342.

Articles in volumes

Ford, C. and B. Fox. To appear. Stance through laughter. In A. Perakyla and M-J Sorjonen (Eds) *Emotion in Interaction*. Oxford: Oxford University Press.

Ford, C. and B. Fox. To appear. Constructing laughables. In D. Barth-Weingarten, E. Reber, and M. Selting (Eds) *Prosody in Interaction*. Amsterdam: John Benjamins.

Fox, B., Wouk, F. Hayashi, M., Sorjonen, M-J., Laakso, M., Fincke, S., and W. Flores Hernandez. To appear. A cross-linguistic perspective on site of initiation of self-repair. In J. Sidnell (Ed) *Comparative Studies in Conversation Analysis*. Cambridge: Cambridge University Press.

Fox, B. 2008. Dynamics of discourse. In G. Antos and K. Knapp (Ed) *Handbook of Applied Linguistics II*. Mouton de Gruyter.

Ford, C., Fox, B., and J. Hellerman. 2004. Getting past "no". In E. Couper-Kuhlen and C. Ford (Eds) *Sound Patterns in Interaction*. Amsterdam: John Benjamins.

Ford, C., Fox, B. and S. Thompson. 2002. Constituency and turn increments. In C. Ford, B. Fox, and S. Thompson (Eds.). *The Language of Turns and Sequences*. London: Oxford University Press.

Ford, C., Fox, B., and S. Thompson. 2002. Interaction and grammar. In M. Tomasello (Ed.) *The New Psychology of Language, vol II.*   New Jersey: Lawrence Erlbaum Assoc.

Fox, B. 2002. On the embodied nature of grammar. In J. Bybee and M. Noonan (Eds.) *Essays in Honor of Sandra Thompson*. Amsterdam: John Benjamins.

Fox, B. 2001. An Exploration of Prosody and Turn Projection in English Conversation. In E. Couper-Kuhlen and M. Selting (Eds.) *Interactional Linguistics*. Amsterdam: John Benjamins.

Fox, B. 1999. Directions in Research: Language and the Body. *Research on Language and Social Interaction* 32. Karen Tracy (Ed.). [Special Issue: "Language and Social Interaction at the Century's Turn"]

Fox, B., Gomez de Garcia, J. and L. Tao. 1998. Tone-choice repair in Mandarin conversation. In B. Fox, D. Jurafsky, L. Michaelis (Eds). Stanford: CSLI.

Fox, B., Hayashi, M. and R. Jasperson. 1996. Resources and repair: a cross-linguistic study of the syntactic organization of repair. In E. Ochs, E. Schegloff & S. Thompson (Eds.). *Interaction and Grammar.* Cambridge: Cambridge University Press, pp. 185-227.

Ford, C. and B. Fox. 1996. Interactional motivations for reference formulation: <u>He </u>had.<u>This</u> guy had a beautiful, thirty-two O:lds. In B. Fox (Ed.) *Studies in Anaphora*. Amsterdam: John Benjamins.

Ford, C., Fox, B. and S. Thompson. 1996. Practices in the construction of turns: the 'TCU' revisited. *Pragmatics* 6: 427-454.

Fox, B. 1996. The category 'S' in conversational English. In W. Abraham, T. Givon and S. Thompson (Eds.), *Discourse Grammar and Typology.* Amsterdam: John Benjamins. 153-178.

Fox, B. and R. Jasperson. 1995.   A syntactic exploration of repair in conversation. In P. Davis (Ed.) *Descriptive and Theoretical Modes in the Alternative Linguistics*. Amsterdam: John Benjamins. pp 77-134.

Fox, B., Hayashi, M. and R. Jasperson. 1994. Semantics and interaction: Three exploratory case studies. In P. Hopper and S. Thompson (Eds.), special issue of *Text* 14: 555-580.

Fox, B. 1994. Contextualization, indexicality, and the distributed nature of grammar. *Language Sciences* 16: 1-37. (Special issue edited by P. Davis.)

Arce-Arenales, M., Axelrod, M. and B. Fox. 1994. Active voice and middle diathesis: A cross-linguistic perspective. In B. Fox and P. Hopper (eds.) *Voice: Form and Function.* Amsterdam: John Benjamins.

Fox, B. 1991. Cognitive and interactional aspects of correction in tutoring dialogues. In P. Goodyear (ed.) *Teaching Knowledge and Intelligent Tutoring*. New Jersey: Ablex.

Fox, B., and S. Thompson. 1991. On formulating reference: an interactional approach to relative clauses in English conversation. In A. Duranti and B. Schieffelin (eds.) *Papers in Pragmatics*.

Fox, B. and P. Smolensky. 1988. Computer-aided reasoned discourse. In R. Guindon (ed.). *Cognitive Science and its Application to Computer-Human Interaction*. New Jersey: L. Erlbaum.

Cooreman, A., Fox, B., and T. Givon. 1988. The discourse definition of ergativity: a study in Chamorro and Tagalog texts. Reprinted in R. McGinn (ed.) *Studies in Austronesian Linguistics*. Athens, Ohio: Ohio University Press.

Fox, B. 1987. Anaphora in written English narratives. In R. Tomlin (ed.) *Coherence and*

Grounding in Discourse. Amsterdam: John Benjamins.

Fox, B. 1985. Participant tracking in Toba Batak. In P. Schachter (ed.) *Studies in the Structure of Toba Batak*. Los Angeles: UCLA.

Fox, B. 1983. The discourse function of the participle in Ancient Greek. In F. Klein-Andreu (ed.) *Discourse Perspectives on Syntax*: 23-41. New York: Academic Press.

Conference Proceedings

Curl, T., Fox, B., Jurafsky, D. and E. Shriberg. 1998. Lexical, prosodic, and syntactic cues for dialog acts. In Proceedings of ACL/COLING-98.

Fox, B. 1993. Correction in tutoring. In *Proceedings of the Fifteenth Annual Conference of the Cognitive Science Society*. University of Colorado, Boulder.

Fox, B. and L. Karen. 1988. Collaborative cognition. In *Proceedings of the Tenth Annual Conference of the Cognitive Science Society*.

Fox, B. 1988. Variation and patterning in discourse and grammar. *Proceedings of NWAV-XV*. Stanford, CA: Stanford University Press.

Bell, B. Fox, B., King, R., Lewis, C., and P. Smolensky. 1987. Constraint-based hypertext for Argumentation. *Proceedings of Hypertext-87*.

Fox, B. 1986. On the creation of discourse by grammar. In S. DeLancey and R. Tomlin (eds.) *Proceedings of the First Pacific Linguistics Conference, Eugene, Oregon*: Eugene, Oregon: University of Oregon.

Reviews

Fox, B. 1992. Review of *The Pragmatics of Word Order*, by Doris Payne. Berlin: Mouton de Gruyter. *American Anthropologist*.

Fox, B. 1988. Review of *Analysing Conversation*, by Talbot Taylor and Deborah Cameron. *Language and Speech* 31.1: 87-93.

Fox, B. 1982. Review of *Language Typology*: *Cross-Linguistic Studies in Syntax* by G. Mallinson and B. Blake, 1981. In *Australian Journal of Linguistics*, 2.2: 261-265.

Conference Papers Presented

Fox, B. And S. Thompson. 2008. Responses to wh-questions in English conversation. Paper presented at the National Communication Association, November, 2008.

Fox, B., Maschler, Y., and S. Uhmann. A Cross-Linguistic Study of Self-Repair: Evidence from

English, German, and Hebrew. 2006. Paper presented at the International Conference on

Conversation Analysis, Helsinki, Finland.

Fox, B. 2000. Challenges in working with prosody in talk-in-interaction. Paper as part of an invited symposium, American Association of Applied Linguistics, March, 2000, Vancouver, Canada.

Curl, T., Fox, B., Jurafsky, D., and E. Shriberg. 1998. Lexical, prosodic, and syntactic cues for dialog acts. Paper given at ACL/COLING-98, Montreal, Canada, August, 1998.

Ford, C., Fox, B. and S. Thompson. 1996. Simultaneous practices of turn projection. Paper given at the American Anthropological Association, San Francisco, California, November, 1996.

Fox, B. 1990. Human Tutorial Dialogue. Panel member at AAAI Spring Symposium, Stanford University, March, 1990.

Fox, B. and S. Thompson. 1988. On the symbiosis of interaction and cognition: relative clauses in English conversation. Anthropological Association of America, Phoenix, Arizona, November, 1988.

Fox, B. and L. Karen. 1988. Collaborative Cognition. The Tenth Annual Conference of the Cognitive Science Society, Montreal, August, 1988.

Fox, B. 1986. Variation and patterning in discourse and grammar. NWAV-XV, Stanford University, October, 1986.

Fox, B. 1986. The Keenan-Comrie Accessibility Hierarchy revisited. Pacific Linguistics Conference, University of Oregon, November, 1986.

Fox, B. 1985. On the creation of discourse by grammar. First Pacific Linguistics Conference, Eugene, Oregon.

Fox, B. 1985. Communicative repair in human tutorial conversation. COTESOL, Denver, Colorado.

Fox, B. 1983. Continuity and discourse structure. Winter meeting of the Linguistics Society of America, Minneapolis, Minnesota.

Invited Talks

Ford, C., Fox, B., and R. Scarborough. 2008. Constructing laughables. Invited talk at the Conference on Prosody and Interaction, University of Potsdam, Berlin, Germany.

Fox, B., Wouk, F. et al. 2008. Syntax, self-repair and turn-taking. Plenary talk at the Workshop on Repair, University of Toronto, Toronto, Canada.

Fox, B. 2007. Won't you make syntax your friend? Plenary talk at the first annual Culture, Language and Social Practice conference, Boulder, CO.

Fox, B. and S. Thompson. 2007. 'Ellipsis" and positionally-sensitive grammar: responses to *wh*-questions. Plenary talk at the Language, Interaction and Social Organization Conference, University of California, Santa Barbara.

Fox, B. 2007. Within-speech laughter. Workshop presented at the Language, Interaction and Social Organization Conference, University of California, Santa Barbara.

Fox, B. 2007. Seen but not heard: visible but silent upper body movements in conversation. Workshop presented at the Symposium on Language, Interaction and Social Organization Conference, University of California, Santa Barbara.

Ford, C. and B. Fox. 2005. Reference and Repair as Grammatical Practices in an Extended Turn. 15th Annual Meeting of the Society for Text and Discourse, Amsterdam, July 6-9, 2005.

Fox, B. 2004. A cross-linguistic study of self-repair. Rice University.

Curl, T., Fox, B., and M. Hayashi. 2002. A family of phonetic practices: an exploration of the relationships among phonetics, syntax and interaction. Invited paper at the invitation-only EURESCO International Linguistics. September, 2002, Helsinki, Finland.

Thompson, S. and B. Fox. 2002. Constructions in conversation: the case of relative clauses in English. Invited plenary talk given at the 2nd International Conference on Construction Grammar. Helsinki, September 2002.

Fox, B. 2000. Micro-syntax in English conversation. Invited paper at the invitation-only conference Interactional Linguistics (sponsored by EURESCO). September, 2000, Spa, Belgium.

Fox, B. 2000. Conversation Analysis and Corpus Linguistics: Research directions at their intersection. Invited talk, Applied Linguistics program, Cornell University, April, 2000.

Fox, B. 1995. On the embodied nature of grammar: embodied being-in-the-world. Plenary talk at the International Conference on Functional Grammar, University of New Mexico, July, 1995.

Ford, C., Fox, B., and S. Thompson. 1995. Practices in the construction of turns: the 'TCU' revisited. Invited talk at the Symposium on Conversation, Albuquerque, New Mexico, July, 1995.

Fox, B. 1995. The Human Tutorial Dialogue Project. Invited talk at AERA, San Francisco, CA, April, 1995.

Fox, B. 1994. Syntax and repair: a cross-linguistic study. Invited talk at the Linguistics Department at the University of New Mexico, November 4, 1994.

Ford, C. and B. Fox. 1994. Interactional motivations for reference formulation: He had.This guy had a beautiful, thirty-two O:lds. (with Cecilia Ford). Invited paper presented at the 20th "Charles Li" symposium, Allenspark, Colorado, May 20-22, 1994.

Fox, B. 1993. The grammar of repair, or: How to be fluently dysfluent. Invited talk at COTESOL. Denver, CO, November, 1993.

Fox, B. 1993. Correction in tutoring. Invited paper for the symposium on tutorial dialogue, 15th annual conference of the Cognitive Science Society, University of Colorado, Boulder, June, 1993.

Fox, B and R. Jasperson. 1993. A syntactic exploration of repair in conversation. Invited paper at the Fifth Biennial Symposium of the Department of Linguistics, Rice University (Descriptive and Theoretical Modes in the Alternative Linguistics), March 30-April 3, 1993.

Fox, B. 1992. A linguist's thoughts on "Transparent Vision." Invited discussant at the Workshop on Interaction and Grammar, UCLA, May 1-2, 1992.

Fox, B. 1992. Functional syntax/discourse analysis and its implications for cognitive science. Invited talk delivered to the Cognitive Science Program, University of Costa Rica, San Jose Costa Rica, February, 1992.

Fox, B. 1992. The Human Tutorial Dialogue Project: Implications for Interactive Instructional Systems. Invited talk delivered to the Cognitive Science Program, University of Costa Rica,

San Jose Costa Rica, and to the Fundacion Omar Dengo, February, 1992.

Fox, B. 1991. Contextualization, indexicality, and the organization of grammar. Invited participant, Rice Symposium on Language and Its Cognitive Interpretation, Rice University, April, 1991.

Fox, B. 1991. Invited speaker, Twelfth Annual Milwaukee Symposium on Linguistics, University of Wisconsin, Milwaukee, April, 1991.

Arce-Arenales, M., Axelrod, M. and B. Fox. 1990. Another look at voice: Ksanta and Kartri Diatheses in Cross-linguistic perspective. Invited paper presented at Voice Symposium, Santa Barbara, CA, March, 1990.

Fox, B. 1989. Research on Human Tutorial Dialogue. Invited talk delivered to the Applied Linguistics Department, University of California, Los Angeles, June, 1989.

Fox, B. 1989. Human tutorial dialogue. Invited talk given at the University of California, Santa Barbara, Cognitive Science Program, February, 1989.

Fox, B. 1989. Human tutorial dialogue. Talk given at the Rocky Mountain Artificial Intelligence Group, School of Mines, Colorado, February, 1989.

Fox, B. 1989. On the symbiosis of interaction and cognition: relative clauses in English conversation. Paper given at the University of Hawaii, Department of Linguistics, January, 1989.

Fox, B. 1987. Invited speaker on panel, "Social science and system design: interdisciplinary collaborations." CHI '87, Toronto.

Fox, B. 1982. Clause-linking in Old Javanese. Invited talk at University of Oregon, Eugene, Oregon.

Academic Honors and Awards

2005   Residence Life Academic Teaching Award
1988   Alumni Association Teaching Recognition Award,
         University of Colorado
1981   National Science Foundation 3-year Graduate Fellowship
1981   University of California Regent Fellowship (not taken)
1980   Phi Beta Kappa

Sponsored Research

2004   A cross-linguistic study of self-repair. NSF. Funded. $297, 476 for 3 years.

2002   A Cross-linguistic Study of Self-repair. Grant-in-Aid, CRCW. $4350.

1994   The syntax of self-repair. CRCW. $3500.

Anaphora symposium. GCAH. $1100.

Funds to bring Andrej Kibrik to the Anaphora Symposium. IREX. $1700.

1989   IMPART grant for course development
(Language and Gender, Lx 2400)
$3,000

1988   "Textual Corpora in Linguistic Education"
with Lise Menn
Proposal to Council on Teaching

"Gender, Public Policy, and the Legislative Process"
with Susan Clarke and Lyn Kathlene
Rutgers Institute on Women
$10,000

1987   "EUCLID: Computer-aided reasoned discourse"
with Paul Smolensky, Roger King and Clayton Lewis
NSF ($479,000 for 3 years)

1985   "Research on Human Tutorial Dialogue."
ONR Personnel and Training Research Division.
$138,000 for 3 years.

"Communicative Repair in Human Tutorial Dialogue"
Junior Faculty Development Award
CRCW $7,000

Service

Profession

Editorial Boards:

Discourse Studies, a new journal edited by Teun van Dijk.
Research on Language in Social Interaction, a journal edited by Don Zimmerman.

Reviewer:

Reviewer for MIT Press, 1990.
Reviewer for Cambridge University Press, 1991.
Reviewer for University of Chicago Press, 1992.
Reviewer for St. Martin's Press, 1992.
Reviewer for Cambridge University Press, 1993.
Reviewer for Oxford University Press, 1996, 1997.

Ad hoc reviewer for the following journals:

International Journal of American Linguistics
Frontiers
Language
Cognitive Science
Cognition and Instruction
Memory and Cognition
International Journal of Human-Computer Interaction
Text
Discourse Processes
Journal of Pragmatics

Referee for National Science Foundation and Office of Naval Research

University

Chancellor's Committee on Women, Co-Chair, 1996-1997.
Chancellor's Advisory Committee on Minority Affairs, 1993 - 1996.
Member of Internal Review Team, Program Review for Fine Arts Department, 1990.
Graduate Committee for the Arts and Humanities, 1989-1992.
University of Colorado, Search committee for Director of Libraries, 1987-1988.
University of Colorado, Boulder Faculty Assembly Libraries Committee, 1984-1987.

College

Women's Advisory Team, Chair, 1997- present.
Member of Dean's Personnel Committee, 1992-1995.

Institute of Cognitive Science

Executive Committee, 1993-1995
Self-study Committee, 1992-1993
Curriculum Committee, 1990.
Chair of Seach Committee for Discourse Processing, 1987-1988.
Executive Committee, 1984-1987.
University-Industry project, 1986-1987.

Search Committee for Director position, 1984-1985
Search Committee for Assistant to the Director position, 1985-1986
Search Committee for Expert Systems/Natural Language Processing position, 1985-86.

Department

Chair, 1999- 2006.
Search Committee for Syntax position, Chair, 1997-1998.
Diversity Committee, Chair, 1996- present.
Graduate Advisor, 1992 – 1998.
Undergraduate Advisor, 1989-1990.
Honors Program Coordinator, 1985-1990.
Library Acquisitions Committee, 1986-1987.
Graduate Admissions Committee, Chair, 1984-1986.
Search Committee for Language Acquisition position, 1984-1985.
Search Committee for TESOL position, 1985-1986.
PRP Self Study Committee, 1984-1985.

Women Studies

Women Studies, Executive Committee, 1986-1988.
Search Committee, Women Studies, 1989-1990.

OTHER SERVICE ACTIVITIES:

Member of workshop panel on teaching large-lecture classes, sponsored by FTEP, November, 1995.

Lectures on Language and Gender to various groups, including:
  Campus Women's Organization; Women's Group of EPO Biology; TA
  Training Program Workshop.

Member of Panel on "Teaching Tips for Women Graduate Students,"
  organized by Mary Ann Shea, for Women Graduate Students in the
  Political Science Dept, October 12, 1990.

Current Doctoral Advisees

Chen, Helen.
Gould, Kevin (with Laura Michaelis).
Jagatiani, Nina.
Kyuno, Kumiko.
Nicholas, Brent.

Doctoral Dissertations Directed

Arce-Arenales, Manuel. (graduated Spring 1989)

Curl, Traci. (graduated Summer 2002)

Diekmann, Barbara. (co-advisor with Clayton Lewis) (graduated Summer 1996)

Hayashi, Makoto. (graduated Spring 2000)

Hoye, Masako (graduated Summer 2008)

Ikeno, Ayako. (graduated Fall 2005)

Jasperson, Robert. (graduated Summer1998)

Liu, Mei-chun. (graduated Spring 1993)

Nicita, Linda. (graduated Summer 2002)

O'Dowd, Elizabeth. (graduated Spring 1994)

Sparks, Randy. (graduated Summer 1994)

Sumiya, Hiromi. (graduated Spring 2008)

Tao, Liang. (graduated Winter 1993)

Thomas-Ruzic, Maria. (graduated Summer 1998)

Weber, Tilo. (graduated Spring 1998)

Yang, Hyun Jung. (graduated Summer 2007)

Doctoral Thesis Committees

Bellver, Phyllis. (graduated summer 2004)
Biasca, Debra. (graduated spring 1999)
Feldman, Andrea. (graduated Summer 1998)
Fisher, Julia. (graduated Spring 1998)
Gomez de Garcia, Jule. (graduated Spring 1994)
Heintzelman, Lori.
Nilep, Chad.
Shay, Erin. (graduated winter 1999)
Stenzel, Kristine. (graduated summer 2004)

Outside Linguistics:

Bott, Robin. English. (graduated summer 1997)
Hegstrom, Jane. Sociology. (graduated Fall 1996)
Herzog, Nancy. Education. (graduated Spring 1995)
Leimkuhler, Meg. Education. (graduated Spring 2000)
Quigley, Jean. Psychology, University of Ireland (graduated Spring 1998).

COURSES TAUGHT:

Language in U.S. Society, Ling. 1000
Introduction to Linguistics, Ling. 2000
Language in its Social Context, Ling. 2200 (New Course)
Language and Gender, Ling. 2400   (New Course)
Morphology and Syntax, Ling. 4420/5420
Semantics and Pragmatics, Ling. 5430   (New Course)
Methods of Typological Research, Ling. 7000
Syntactic Theory, Ling. 7420
Semantic Theory, Ling. 7430
Introduction to Conversation Analysis, Ling. 7800
Seminar in Syntax, Ling. 8420