

# Language beyond Skinner and Chomsky\*

Spring 2017 — Mondays, 2:00–4:25pm

**prerequisite:** permission of instructor

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## Abstract

This advanced seminar focuses on the state of the art and on possible future directions for the cognitive science of language.

Some of the material is complex and technical, requiring prior exposure to concepts from linguistics and computational cognitive science. It is aimed at advanced undergraduate students, as well as graduate students from psychology, neurobiology, computer science, and other cognitive sciences.

The readings consist of about 50 papers from the primary literature (listed below and available on the course Blackboard site as a zipped collection of PDFs). Chapter 7 from *Computing the Mind: How the Mind Really Works* (Oxford University Press, 2008) serves as a general background and introduction. Additional papers and changes to this syllabus may be occasionally posted on Blackboard as needed.

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\*PSYCH 4320; COGST 4310; LING 4310, BIONB 4330

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## Administrative details

### Learning objectives

The students will be acquainted with the latest thinking and research concerning certain aspects of language, with a special focus on cognitive-computational theories and models.

### To get credit

- **Read** (20% of the course grade). For each week, there's a list of references (all the papers are also listed at the end of the syllabus, alphabetically by first author). These include primary readings (required) and other readings (optional, but highly recommended).

To be able to follow and participate in the discussion in class, read each week's materials *ahead of the meeting*. To get credit for reading, before each class submit (via Blackboard) a question about the weekly assignment (1 or 2 points each; at least 10 questions must be turned in).

- **Attend**. Attendance will be monitored; missing a class may result in a penalty on the final grade (except when approved ahead of time by the instructor).
- **Participate** (20%). Contribute to the discussion, even if you are not the presenter. Following each class, submit a question or comment regarding some issue(s) that came up in the discussion (1 or 2 points each; at least 10 questions must be turned in).
- **Present** (40%). Prepare a presentation and lead the discussion at one of the meetings. Arrange to meet with the instructor ahead of the class to discuss your plans and preparation.
- **Write** (20%). Compose a final essay; present it briefly (5 min) at the last class meeting; and submit it (in pdf, via email to the instructor) by noon on Monday, May 15. Detailed instructions will follow.

### Code of integrity

The Cornell University code of academic integrity applies.

### Students with disabilities

If you have a disability-related need for reasonable academic adjustments in this course, provide the instructor with an accommodation letter from Student Disability Services. Meeting with the instructor during office hours will help ensure confidentiality. Students are expected to give two weeks notice of the need for accommodations. If you need immediate accommodations, please arrange to meet with the instructor within the first two weeks of classes.

## Preliminaries and overview — 1/30

- 1/30 – a brief theory-neutral view of language [15, ch.7]
- the two dogmas of linguistics [34, 17]:
  - \* the syntax dogma
  - \* the semantics dogma
- a glimpse of the real world and a hope for liberation [16] [finish reading this by week 11].

### Primary readings

- [15] S. Edelman. *Computing the mind: how the mind really works*. Oxford University Press, New York, NY, 2008 ch. 7
- [34] R. J. LaPolla. On the logical necessity of a cultural and cognitive connection for the origin of all aspects of linguistic structure. In R. De Busser and R. J. LaPolla, editors, *Language Structure and Environment: Social, cultural and natural factors*, pages 31–44. John Benjamins, Amsterdam, 2015
- [17] S. Edelman. Verbal behavior without syntactic structures: beyond Skinner and Chomsky. In C. Behme, editor, *Chomsky's Legacy*. 2017. Forthcoming

### Other readings

- [16] S. Edelman. Language and other complex behaviors: unifying characteristics, computational models, neural mechanisms, 2017. Under review

## Theme I: the state of the art — (A) the formalist approach [2/6, 2/13]

2/6 theory [43, 26, 19, 49, 51]

2/13 methodology [44, 26, 2, 27]; evidence [40, 3, 47, 9]

### Primary readings

- 2/6 [43] C. Phillips. Syntax. In L. Nadel, editor, *Encyclopedia of Cognitive Science*, volume 4, pages 319–329. Macmillan, London, 2003
- [19] M. B. H. Everaert, M. A. C. Huybregts, N. Chomsky, R. C. Berwick, and J. J. Bolhuis. Structures, not strings: linguistics as part of the cognitives sciences. *Trends in Cognitive Sciences*, 19:729–743, 2015
- [51] E. Stabler. The epicenter of linguistic behavior. In M. Sanz, I. Laka, and M. K. Tanenhaus, editors, *Language Down the Garden Path: The Cognitive and Biological Basis of Linguistic Structures*, pages 316–323. Oxford University Press, New York, NY, 2013
- 2/13 [2] C. Behme. A ‘Galilean’ science of language. *Journal of Linguistics*, 50:671–704, 2014
- [40] Y. Nakano, C. Felser, and H. Clahsen. Antecedent priming at trace positions in Japanese long-distance scrambling. *Journal of Psycholinguistic Research*, 31:531–570, 2002
- [3] M. Ben-Shachar, T. Hendler, I. Kahn, D. Ben-Bashat, and Y. Grodzinsky. The neural reality of syntactic transformations: evidence from functional magnetic resonance imaging. *Psychological Science*, 14:433–440, 2003
- [47] A. Santi and Y. Grodzinsky. fMRI adaptation dissociates syntactic complexity dimensions. *NeuroImage*, 51:1285–1293, 2010
- [9] J. R. Brennan, E. P. Stabler, S. E. Van Wagenen, W.-M. Luh, and J. Hale. Abstract linguistic structure correlates with temporal activity during naturalistic comprehension. *Brain and Language*, 157-158:81–94, 2016

### Other readings

- [26] H. Haider. Scientific ideology and scientific conduct: metaphors one lives by in the Minimalist Program, 2014. Unpublished manuscript
- [44] P. M. Postal. Junk linguistics. In *Skeptical linguistic essays*. Oxford University Press, New York, 2004. Part II
- [49] M. Shibatani. Syntax (general). In J. D. Wright, editor, *International Encyclopedia of the Social & Behavioral Sciences*, volume 23, pages 885–894. Elsevier Science, Amsterdam, 2nd edition, 2015. doi: <http://dx.doi.org/10.1016/B978-0-08-097086-8.52033-9>
- [27] H. Haider. The chapter of incredible neglects. In *Incredible syntax — between cognitive science and imposture*. 2016. Unpublished manuscript

## Theme I: the state of the art — (B) the cognitive approach [2/27, 3/6]

2/27 theory [20, 31, 32, 23, 13, 33]

3/6 evidence [24, 55, 8, 39, 38, 5]

### Primary readings

- 2/27 [32] R. W. Langacker. Conceptualization, symbolization, and grammar. In M. Tomasello, editor, *The new psychology of language*, pages 1–39. Erlbaum, Mahwah, NJ, 1998
- [23] A. E. Goldberg. Constructions: a new theoretical approach to language. *Trends in Cognitive Sciences*, 7:219–224, 2003
- [13] H. Diessel. Usage-based construction grammar. In E. Dąbrowska and D. Divjak, editors, *Handbook of Cognitive Linguistics*. Mouton de Gruyter, Berlin, 2015
- [33] R. W. Langacker. Working toward a synthesis. *Cognitive Linguistics*, 27:465–477, 2016
- 3/6 [24] M. Gross. Lexicon-grammar: Application to French. In R. E. Asher, editor, *The Encyclopedia of Language and Linguistics*, volume 4, pages 2195–2205. Pergamon Press, 1994
- [55] M. Tomasello. Acquiring linguistic constructions. In R. Siegler and D. Kuhn, editors, *Handbook of Child Psychology*, pages 1–48. Oxford, 2006
- [39] L. A. Michaelis. Making the case for Construction Grammar. In H. Boas and I. Sag, editors, *Sign-based Construction Grammar*, pages 31–69. CSLI Publications, Stanford, 2012
- [38] G. Lucchese, J. Hanna, A. Autenrieb, T. McCormick Miller, and F. Pulvermüller. Electrophysiological evidence for early and interactive symbol access and rule processing in retrieving and combining language constructions. *Journal of Cognitive Neuroscience*, 29:1–13, 2016. doi: 10.1162/jocn\_a\_01038
- [5] R. Bod. Constructions at work or at rest? *Cognitive Linguistics*, 20:129–134, 2009

### Other readings

- [20] C. J. Fillmore. Syntactic intrusion and the notion of grammatical construction. *Berkeley Linguistic Society*, 11:73–86, 1985
- [31] R. W. Langacker. An introduction to Cognitive Grammar. *Cognitive Science*, 10:1–40, 1986
- [13] H. Diessel. Usage-based construction grammar. In E. Dąbrowska and D. Divjak, editors, *Handbook of Cognitive Linguistics*. Mouton de Gruyter, Berlin, 2015
- [8] V. Boulenger, Y. Shtyrov, and F. Pulvermüller. When do you grasp the idea? MEG evidence for instantaneous idiom understanding. *NeuroImage*, 59:3502–3513, 2012

## **Theme I: the state of the art — (C) the empirical/computational approach [3/13, 3/20]**

**3/13** results [50, 48, 4]

**3/20** evidence [36, 1, 7, 29]

### **Primary readings**

- 3/13 [50] Z. Solan, D. Horn, E. Ruppin, and S. Edelman. Unsupervised learning of natural languages. *Proceedings of the National Academy of Science*, 102:11629–11634, 2005
- [4] R. Bod. From exemplar to grammar: A probabilistic analogy-based model of language learning. *Cognitive Science*, 33:752–793, 2009
- 3/20 [36] E. Lieven, M. Tomasello, H. Behrens, and J. Speares. Early syntactic creativity: a usage-based approach. *Journal of Child Language*, 30:333–370, 2003
- [1] C. Beckner and J. Bybee. A usage-based account of constituency and reanalysis. *Language Learning*, 59, Suppl. 1:27–46, 2009
- [7] G. Borensztajn, W. Zuidema, and R. Bod. Children’s grammars grow more abstract with age. *Topics in Cognitive Science*, 1:175–188, 2009
- [29] O. Kolodny, A. Lotem, and S. Edelman. Learning a generative probabilistic grammar of experience: a process-level model of language acquisition. *Cognitive Science*, 39:227–267, 2015

### **Other readings**

- [48] R. Scha, R. Bod, and K. Sima’an. A memory-based model of syntactic analysis: data-oriented parsing. *J. of Experimental and Theoretical Artificial Intelligence*, 11:409–440, 1999

## Theme II: critique — 3/27, 4/10, 4/17

3/27 grammaticality/acceptability [25, 46, 45, 11, 35]

4/10 performance and individual differences [21, 10, 12, 54]

4/17 real language [37, 14, 52, 22, 53]

### Primary readings

- 3/27 [46] G. R. Sampson. Grammar without grammaticality. *Corpus Linguistics and Linguistic Theory*, 3: 1–32, 2007. doi: 10.1515/CLLT.2007.001
- [11] E. Dąbrowska. Naive v. expert intuitions: An empirical study of acceptability judgments. *The Linguistic Review*, 27:1–23, 2010
- [35] J. H. Lau, A. Clark, and S. Lappin. Grammaticality, acceptability, and probability: a probabilistic view of linguistic knowledge. *Cognitive Science*, 2016. doi: 10.1111/cogs.12414. In press
- 4/10 [21] E. Gibson and J. Thomas. Memory limitations and structural forgetting: The perception of complex ungrammatical sentences as grammatical. *Language and Cognitive Processes*, 14: 225–248, 1999
- [10] N. Chipere. Native speaker variations in syntactic competence: implications for first language teaching. *Language Awareness*, 10:107–124, 2001
- [12] E. Dąbrowska and J. Street. Individual differences in language attainment: Comprehension of passive sentences by native and non-native English speakers. *Language Sciences*, 28:604–615, 2006
- [54] J. A. Street. This is the native speaker that the non-native speaker outperformed: Individual, education-related differences in the processing and interpretation of Object Relative Clauses by native and non-native speakers of English. *Language Sciences*, 59:192–203, 2017
- 4/17 [37] N. Love. Cognition and the language myth. *Language Sciences*, 26:525–544, 2004
- [14] J. W. Du Bois. Towards a dialogic syntax. *Cognitive Linguistics*, 25:359–410, 2014
- [53] S. V. Steffensen. Cognitive probatonics: Towards an ecological psychology of cognitive particulars. *New Ideas in Psychology*, 42:29e38, 2016
- [22] J. Ginzburg and M. Poesio. Grammar is a system that characterizes talk in interaction. *Frontiers in Psychology*, 7:1938, 2016. doi: 10.3389/fpsyg.2016.01938

### Other readings

- [25] E. Gurman-Bard, D. Robertson, and A. Sorace. Magnitude estimation of linguistic acceptability. *Language*, 72:32–68, 1996
- [45] N. Riemer. Grammaticality as evidence and as prediction in a Galilean linguistics. *Language Sciences*, 31:612–633, 2009
- [52] S. V. Steffensen. Distributed Language and Dialogism: notes on non-locality, sense-making and interactivity. *Language Sciences*, 50:105–119, 2015

## Theme III: a fresh start — 4/24, 5/1, 5/8

4/24 language and other behaviors [28, 16]

5/1 computational approaches [56, 18, 6, 41, 42, 16]

5/8 summary [17]

### Primary readings

- 4/24 [28] O. Kolodny and S. Edelman. The problem of multimodal concurrent serial order in behavior. *Neuroscience and Biobehavioral Reviews*, 56:252–265, 2015
- [16] S. Edelman. Language and other complex behaviors: unifying characteristics, computational models, neural mechanisms, 2017. Under review
- 5/1 [56] N. Ward. A parallel approach to syntax for generation. *Artificial Intelligence*, 57:183–225, 1992
- [18] S. Edelman and Z. Solan. Machine translation using automatically inferred construction-based correspondence and language models. In B. T'sou and C.-R. Huang, editors, *Proc. 23rd Pacific Asia Conference on Language, Information, and Computation (PACLIC)*, Hong Kong, 2009
- [41] C. Paperno, G. Kruszewski, A. Lazaridou, Q. N. Phamy, R. Bernardi, S. Pezzelle, M. Baroni, G. Boleda, and R. Fernández. The LAMBADA dataset: Word prediction requiring a broad discourse context, 2016. arXiv:1606.06031v1 [cs.CL] 20 Jun 2016
- [16] S. Edelman. Language and other complex behaviors: unifying characteristics, computational models, neural mechanisms, 2017. Under review
- 5/8 [17] S. Edelman. Verbal behavior without syntactic structures: beyond Skinner and Chomsky. In C. Behme, editor, *Chomsky's Legacy*. 2017. Forthcoming

### Other readings

- [30] M. Lachmann, S. Számadó, and C. T. Bergstrom. Cost and conflict in animal signals and human language. *Proceedings of the National Academy of Science*, 98:13189–13194, 2001
- [6] J. W. Bohland, D. Bullock, and F. H. Guenther. Neural representations and mechanisms for the performance of simple speech sequences. *Journal of Cognitive Neuroscience*, 22:1504–1529, 2010
- [42] G. Pezzulo and P. Cisek. Navigating the affordance landscape: feedback control as a process model of behavior and cognition. *Trends in Cognitive Sciences*, 20:414–424, 2016

## References

- [1] C. Beckner and J. Bybee. A usage-based account of constituency and reanalysis. *Language Learning*, 59, Suppl. 1:27–46, 2009.
- [2] C. Behme. A ‘Galilean’ science of language. *Journal of Linguistics*, 50:671–704, 2014.
- [3] M. Ben-Shachar, T. Hendler, I. Kahn, D. Ben-Bashat, and Y. Grodzinsky. The neural reality of syntactic transformations: evidence from functional magnetic resonance imaging. *Psychological Science*, 14: 433–440, 2003.
- [4] R. Bod. From exemplar to grammar: A probabilistic analogy-based model of language learning. *Cognitive Science*, 33:752–793, 2009.
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- [8] V. Boulenger, Y. Shtyrov, and F. Pulvermüller. When do you grasp the idea? MEG evidence for instantaneous idiom understanding. *NeuroImage*, 59:3502–3513, 2012.
- [9] J. R. Brennan, E. P. Stabler, S. E. Van Wagenen, W.-M. Luh, and J. Hale. Abstract linguistic structure correlates with temporal activity during naturalistic comprehension. *Brain and Language*, 157-158: 81–94, 2016.
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- [11] E. Dąbrowska. Naive v. expert intuitions: An empirical study of acceptability judgments. *The Linguistic Review*, 27:1–23, 2010.
- [12] E. Dąbrowska and J. Street. Individual differences in language attainment: Comprehension of passive sentences by native and non-native English speakers. *Language Sciences*, 28:604–615, 2006.
- [13] H. Diessel. Usage-based construction grammar. In E. Dąbrowska and D. Divjak, editors, *Handbook of Cognitive Linguistics*. Mouton de Gruyter, Berlin, 2015.
- [14] J. W. Du Bois. Towards a dialogic syntax. *Cognitive Linguistics*, 25:359–410, 2014.
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- [18] S. Edelman and Z. Solan. Machine translation using automatically inferred construction-based correspondence and language models. In B. T'sou and C.-R. Huang, editors, *Proc. 23rd Pacific Asia Conference on Language, Information, and Computation (PACLIC)*, Hong Kong, 2009.
- [19] M. B. H. Everaert, M. A. C. Huybregts, N. Chomsky, R. C. Berwick, and J. J. Bolhuis. Structures, not strings: linguistics as part of the cognitives sciences. *Trends in Cognitive Sciences*, 19:729–743, 2015.
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- [23] A. E. Goldberg. Constructions: a new theoretical approach to language. *Trends in Cognitive Sciences*, 7:219–224, 2003.
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- [25] E. Gurman-Bard, D. Robertson, and A. Sorace. Magnitude estimation of linguistic acceptability. *Language*, 72:32–68, 1996.
- [26] H. Haider. Scientific ideology and scientific conduct: metaphors one lives by in the Minimalist Program, 2014. Unpublished manuscript.
- [27] H. Haider. The chapter of incredible neglects. In *Incredible syntax — between cognitive science and imposture*. 2016. Unpublished manuscript.
- [28] O. Kolodny and S. Edelman. The problem of multimodal concurrent serial order in behavior. *Neuroscience and Biobehavioral Reviews*, 56:252–265, 2015.
- [29] O. Kolodny, A. Lotem, and S. Edelman. Learning a generative probabilistic grammar of experience: a process-level model of language acquisition. *Cognitive Science*, 39:227–267, 2015.
- [30] M. Lachmann, S. Számádó, and C. T. Bergstrom. Cost and conflict in animal signals and human language. *Proceedings of the National Academy of Science*, 98:13189–13194, 2001.
- [31] R. W. Langacker. An introduction to Cognitive Grammar. *Cognitive Science*, 10:1–40, 1986.
- [32] R. W. Langacker. Conceptualization, symbolization, and grammar. In M. Tomasello, editor, *The new psychology of language*, pages 1–39. Erlbaum, Mahwah, NJ, 1998.
- [33] R. W. Langacker. Working toward a synthesis. *Cognitive Linguistics*, 27:465–477, 2016.
- [34] R. J. LaPolla. On the logical necessity of a cultural and cognitive connection for the origin of all aspects of linguistic structure. In R. De Busser and R. J. LaPolla, editors, *Language Structure and Environment: Social, cultural and natural factors*, pages 31–44. John Benjamins, Amsterdam, 2015.

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- [36] E. Lieven, M. Tomasello, H. Behrens, and J. Speares. Early syntactic creativity: a usage-based approach. *Journal of Child Language*, 30:333–370, 2003.
- [37] N. Love. Cognition and the language myth. *Language Sciences*, 26:525–544, 2004.
- [38] G. Lucchese, J. Hanna, A. Autenrieb, T. McCormick Miller, and F. Pulvermüller. Electrophysiological evidence for early and interactive symbol access and rule processing in retrieving and combining language constructions. *Journal of Cognitive Neuroscience*, 29:1–13, 2016. doi: 10.1162/jocn\_a\_01038.
- [39] L. A. Michaelis. Making the case for Construction Grammar. In H. Boas and I. Sag, editors, *Sign-based Construction Grammar*, pages 31–69. CSLI Publications, Stanford, 2012.
- [40] Y. Nakano, C. Felser, and H. Clahsen. Antecedent priming at trace positions in Japanese long-distance scrambling. *Journal of Psycholinguistic Research*, 31:531–570, 2002.
- [41] C. Paperno, G. Kruszewski, A. Lazaridou, Q. N. Phamy, R. Bernardi, S. Pezzelle, M. Baroni, G. Boleda, and R. Fernández. The LAMBADA dataset: Word prediction requiring a broad discourse context, 2016. arXiv:1606.06031v1 [cs.CL] 20 Jun 2016.
- [42] G. Pezzulo and P. Cisek. Navigating the affordance landscape: feedback control as a process model of behavior and cognition. *Trends in Cognitive Sciences*, 20:414–424, 2016.
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- [47] A. Santi and Y. Grodzinsky. fMRI adaptation dissociates syntactic complexity dimensions. *NeuroImage*, 51:1285–1293, 2010.
- [48] R. Scha, R. Bod, and K. Sima’an. A memory-based model of syntactic analysis: data-oriented parsing. *J. of Experimental and Theoretical Artificial Intelligence*, 11:409–440, 1999.
- [49] M. Shibatani. Syntax (general). In J. D. Wright, editor, *International Encyclopedia of the Social & Behavioral Sciences*, volume 23, pages 885–894. Elsevier Science, Amsterdam, 2nd edition, 2015. doi: <http://dx.doi.org/10.1016/B978-0-08-097086-8.52033-9>.
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- [52] S. V. Steffensen. Distributed Language and Dialogism: notes on non-locality, sense-making and interactivity. *Language Sciences*, 50:105–119, 2015.
- [53] S. V. Steffensen. Cognitive probatonics: Towards an ecological psychology of cognitive particulars. *New Ideas in Psychology*, 42:29e38, 2016.
- [54] J. A. Street. This is the native speaker that the non-native speaker outperformed: Individual, education-related differences in the processing and interpretation of Object Relative Clauses by native and non-native speakers of English. *Language Sciences*, 59:192–203, 2017.
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