

# HESP 300: Introduction to Psycholinguistics, Fall 2016

## When and Where

Tuesdays and Thursdays, 11am – 12:15pm

Susquehanna Hall, 1117

<http://www.elms.umd.edu>

## Who

Instructor: Dr. Jared Novick

✉ [jnovick1@umd.edu](mailto:jnovick1@umd.edu)



“Coffee Hours” on Fridays, 9:30-11:30am, The Coffee Bar in Stamp. To request a separate appointment, please contact me by email, but note that these appointments may be limited.

Teaching Assistants:

Ms. Lauren Wilson (Undergraduate HESP major)

✉ [lwilso@umd.edu](mailto:lwilso@umd.edu)

Office hours: TBA, but Lefrak 0110B (inside clinic)

Ms. Megan Fox (Undergraduate HESP major)

✉ [meganfox@umd.edu](mailto:meganfox@umd.edu)

Office Hours: Tuesdays & Thursdays, 12:30-1:30 (right after class!), Lefrak 0110B (inside clinic)

✉ Please include “HESP300” in the subject line of all emails to us, and note that we may not be able to respond between the hours of 8pm and 10am, but we will respond within 24 hours.

## What and Why

### Course Description

Welcome! Psycholinguistics—also known as the Psychology of Language—is the scientific study of how humans acquire, use, comprehend, and produce language. People in all societies learn and use their native language(s) with apparent ease—but don’t be fooled: languages are highly complex, and speaking and understanding language requires some amazing feats of mental acrobatics. The field of psycholinguistics examines the psychological (behavioral) and neurobiological (brain) factors that enable people to learn and use language despite its intricacies, focusing on people’s unconscious knowledge of their language, how this knowledge is acquired, and how it is represented and processed in the mind and brain.

The goal is for you to understand and appreciate a range of issues in the field, including:

- How the mind decodes the speech signal
- How the meanings of words are accessed, and how sentences are processed and understood
- How speech is planned and produced
- The biological and cognitive substrates of language processing

- How babies acquire their first language, and how adults learn their second
- The various behavioral and brain-imaging methods used to investigate these issues

### Learning Objectives

At the completion of this course, students are expected to be able to:

- Describe the process of speech perception, its role in language acquisition and the processing of spoken language
- Discuss different stages in the course of language comprehension, including single words, phrases, and sentences
- Summarize models, processes, and stages involved in typical language production
- Integrate knowledge of speech perception, language comprehension, language production and acquisition, with investigations of the underlying neurological substrates of language
- Understand the brain bases of language use and language loss

All handouts, assignments, announcements, grades, and some readings will be available on the Canvas site. This syllabus and partial copies of the lecture slides will also be available there.<sup>1</sup> *Please note that the slides are merely outlines.* They will not contain all the information that you will be expected to learn and cannot serve as a substitute for class attendance. To succeed in this course, you should attend all lectures, take your own notes, read the textbook, and review the slides provided. Maybe even come see me from time to time during “coffee hours.” Please be sure to check the ELMS site (and your email) regularly!

### Required Textbook

Language in Mind: An Introduction to Psycholinguistics, by Julie Sedivy

This book is available in the University Bookstore, and a copy is also on Course Reserves in McKeldin Library for you to borrow for up to 24 hours. Please complete all readings before class. This will prepare you to contribute to the class dialog, ask for clarification, and/or raise issues that you would like to discuss. Please also briefly re-read the material after class to ensure that you have grasped the concepts covered. I personally think that the book is excellent – easy to read and very accessible – and I think you will enjoy it. Note too that there is free web material that accompanies the text, including chapter outlines, supplementary web activities, videos, flashcards & key terms, suggested further readings, and additional web links. We will do some, but not all, of the web demonstrations together in class. This complementary material will enhance your reading and will also be hugely useful as you prepare for quizzes and exams. Plus, it’s fun!

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<sup>1</sup> Ah, the fine print. Please note that lectures and other course materials are copyrighted and may not be reproduced for anything other than personal use without written permission from me. Similarly, you own copyright in your original papers and exam essays. If I am interested in posting your (excellent!) answers or papers on the course website, I will ask for your written permission: <http://faculty.umd.edu/teach/IllegalDistribution.html>

See <http://sites.sinauer.com/languageinmind/> for details.

Some sections of the book will overlap with lecture content, whereas other sections will simply complement the lectures. This approach will provide a nice survey of a range of topics with the book guiding the central themes from week to week. Please be responsible and do all the assigned readings. The quizzes, midterms, and final exam will test you on both overlapping and complementary content. However, any topic or material that appears in a chapter that hasn't been discussed during class will generally not be on the exams.

### Other Required Readings

You will also be reading some articles from the primary scientific literature, which will be posted on the course website (see below for details).

## How

### Assessment

Article Critiques (4)	15%
In-class Quizzes (6)	15%
"Research in the Community" Paper	10%
Midterms (2)	40%
Non-cumulative Final (1)	20%
<b>Total</b>	<b>100%</b>

Quizzes and exams will be taken in class.

**Exams:** The exams will consist of any combination of short answer, true-false, picture and graph labeling, and multiple choice questions. They will be given at the start of class on the day scheduled. If you arrive late to class, you will have less time to take your exam. Please don't sleep in! Exams will focus on information from the lectures and readings. They will assess both knowledge and understanding of key material and will require both accurate recollection of critical information and flexible application to new situations. During the exam, you will have the option to bring a 3 x 5 index card that can be filled on both sides with whatever content you choose. This card must include your name and will be turned in with your exam. Exam grades will be curved upwards to exclude frequently missed questions and additional adjustments based on the instructor's discretion.

**Quizzes:** The quizzes will consist of 5-8 questions (or so) aimed at your understanding of the material covered in the previous few lectures (i.e., the current modules). They're generally short-answer but sometimes they are true-false or multiple choice. You will have 20 minutes to complete the quiz at the beginning of class, which is usually more than enough time. One goal of the quizzes is to help you prepare along the way to an exam. The feedback I've received is that students really like the quizzes because they provide insight into the types of questions you'll see on the exams (no surprises!) and they force you to study in little increments, since

spaced testing (not cramming!) really works in terms of helping you learn. There is experimental evidence for this. So, think of the quizzes as helpful study guides and an opportunity to really boost your grade.

**Assignments:** There will be **4** article critiques in this course (see below). Additionally, you will write a brief “Research in the Community” paper (see more detail under Assignments on Canvas, and under the Writing heading below). Maryland has a large and vibrant Cognitive and Language Science research community, and we encourage you to attend talks and colloquia. This semester, there are particularly interesting and relevant talks happening in the following departments and programs: Cognitive Science Colloquium (<http://faculty.philosophy.umd.edu/pcarruthers/cog-sci-F16.htm>); Linguistics Colloquium (<http://ling.umd.edu/events/colloquium/>); Hearing and Speech Sciences (<http://www.hesp.umd.edu/content/seminar-series-0>); and NACS Colloquium (<https://nacs.umd.edu/activities/nacs-seminars>). All Cognitive Science Colloquium meetings take place on Thursdays, 3:30-5:30pm in the Bioscience Research Building 1103, unless otherwise indicated on the website. All HESP Colloquium meetings take place on Wednesdays at 12pm in Lefrak Hall, 2208. NACS (Neuroscience and Cognitive Science) Colloquia take place on Fridays from 10:15-11:30am in 1103 Bioscience Research Building. The venue for LING colloquia are TBA. On Canvas there is a list of talks this semester that should be really good; you can sign up there to attend one that is of particular interest to you. You will write a paper about what you learned (see Canvas for details). Please see Professor Novick if you cannot attend a colloquium due to a scheduling conflict (e.g., another class), so we can arrange an alternative assignment, which will involve reading a paper from a primary source and writing a report.

All article and paper assignments should be submitted **online through the Canvas system by 11:59pm** on the due date. I’ll accept late assignments for **half credit** if I receive them within **two days** after the due date.

Grading

The table below indicates the grade point and percentage distributions used by UMD.<sup>2</sup>

Letter Grade	Percentage	GPA Points
A+	97%-100%	4.0
A	93%-96.99%	4.0
A-	90%-92.99%	3.7
B+	87%-89.99%	3.3
B	83%-86.99%	3.0
B-	80%-82.99%	2.7
C+	77%-79.99%	2.3
C	73%-76.99%	2.0
C-	70%-72.99%	1.7

<sup>2</sup> Please note: ELMS does not necessarily calculate grades the way this syllabus does (because I’m not sure what ELMS ever does!). Often they’re in sync, but if there’s any conflict, please trust the syllabus because you can’t always trust ELMS to do the totals right. Thanks.

D+	67%-69.99%	1.3
D	63%-66.99%	1.0
D-	60%-62.99%	0.7
F	59.99% and under	0

In what follows, I outline some important course-related policies. These policies summarize more general conduct policies issued by the university, so for official information, I'd like to direct you to a student-facing page of policies and resources that our administration has posted: <http://www.ugst.umd.edu/courserelatedpolicies.html>. Below, where relevant, I refer you to particular tabs on this site for more information, as well as to links with other relevant information so you're armed with all the knowledge you might need. Questions? Please ask!

### Attendance

You are expected to attend all classes. Attendance itself will not affect your final grade; however, you will be responsible for asking about and making up all missed in-class assignments, getting notes from a friend, checking ELMS, etc.

You must provide documentation if you miss class on the day of a quiz or exam or if you wish to make up one of the in-class assignments. Appropriate excuses and documentation are: illness (verified by a note from a doctor); religious holidays or university sanctioned events (see below); or a death in your family. Please notify me immediately; you will need to take the exam as soon as you return to campus from unanticipated events (illness, family emergency). For anticipated events (holiday or university sanctioned events), you will need to take the exam *before* the event. For further information on the university's newest official attendance policy, including excused absences and missed assignments, please visit <http://www.ugst.umd.edu/courserelatedpolicies.html>. This is the policy we must follow in HESP 300. You will be unable to make up an exam for other absences, so please do not sleep through an exam (do college students still sleep past 11am these days?). (For more information, please also see [https://faculty.umd.edu/teach/attend\\_change.html](https://faculty.umd.edu/teach/attend_change.html).)

If an ongoing illness or other personal circumstance is preventing you from attending class or is otherwise affecting your academic performance, please contact me as soon as possible so I am aware of your situation and so I can try to help you succeed.

### **Pre-planned excused absences (religious holidays, university-sanctioned events):**

If you will be absent from class on an exam/quiz day to observe a religious holiday or for a university-sanctioned event, please inform me in advance. I will then be able to make arrangements ahead of time for you to make up the assignment. Note: If you will be missing exams or homework due dates to travel for university sporting events, simply providing me with your travel schedule at the beginning of the semester is not sufficient to meet this requirement. It's impossible for me to track everyone's various schedules, though I wish I could (meh, actually I don't)!

**University closures:** Class will meet regularly unless the university officially closes for weather-related events, a flu outbreak, zombie attack, alien invasion, etc. Please call 301-405-SNOW or check the university website ([www.umd.edu](http://www.umd.edu)) for information regarding cancellations or delays due to inclement weather or emergencies. You may also sign up for the free university text messaging system, UMD Alerts, and receive text messages for a heads-up: <http://alert.umd.edu>. If class is cancelled, I'll adjust the schedule accordingly.

## Writing

### Writing Assistance

This course requires a significant amount of expository writing. Clarity in your writing will count toward your homework, paper, and exam grades. If you need help with your writing skills, you may contact the Writing Center in the College of Arts & Humanities. You can find their website here: <http://www.english.umd.edu/academics/writingcenter>. You'll find information on how to schedule an appointment, whom to see, how to contact them, etc. And wow, there's also a "grammar hotline" that the university manages – check it out if you have questions about word choice, punctuation, etc.!:

<http://www.english.umd.edu/academics/writingcenter/resources/hotline>

### Article Critiques

As a requirement of this class, you will be reading and critiquing 4 articles that have made important contributions to the field of psycholinguistics. You can find the articles on the website (under Assignments). These article critiques are geared towards teaching you how to read scientific journal articles and understanding how to write about research in a clear manner. Both of these are skills you will need in this major. Papers will be written using the QALMRI format and will be two pages long (additional pages won't be graded), double-spaced, 1-inch margins, 12-pt font. What's QALMRI? Great question. We will have a lecture early in the semester devoted to this so don't worry a bit.

Please use the template provided on the website (under Assignments, along with the papers). You will be graded based on your ability to clearly and succinctly explain each of the QALMRI sections. This includes correctly laying out the alternatives, explaining the logic of the experiment, providing relevant details on the methods, critically analyzing the results, linking findings to the alternatives and course materials, and raising possible critiques and follow-ups. For the latter three critiques I also provided some "thought questions" that will help you delve a little bit deeper into the article material. They're simply guides to the sorts of things you might address in your QALMRI write-up while diving into the issue – you *don't* have to answer them directly, but they might help you think about how you approach the paper and the write-up. These questions are also under each assignment (NB: I didn't provide thought questions for the first article critique – Kutas and Hillyard, 1980 – because I just want you first to get comfortable with the QALMRI format). As I'll mention in class, for these assignments, you do not have to write an essay or full prose – you can list bullets under each heading (Q- bullets

outlining question; A- bullets outlining alternatives; L- bullets outlining logic; M- bullets outlining method; R- bullets outlining results; I- bullets outlining inferences). That's it!

### Tips for "Research in the Community" Paper

1. Please format this assignment in American Psychological Association (APA) style for citations. This is the HESP required writing style for all assignments throughout its curriculum, so it's a good idea to learn it now. Please go to the Libraries' [quick guide to APA format style](#). The reference format for a journal articles is:
  - Author's last name, initials. (year). Article title, using lower case after first word. *Journal title* (italicized), *volume number*, pages x-y.
  - Tanenhaus, M.K., Spivey-Knowlton, M.J., Eberhard, K.M. & Sedivy, J.E. (1995). Integration of visual and linguistic information in spoken language comprehension. *Science*, 268, 1632-1634.
2. Please proofread your work to make sure you have written clear, sensible English sentences. I will reduce grades for carelessness in grammar or spelling. If you're unsure of what you've said, try telling a roommate, friend, or classmate: if they're confused, try to reword it. I would really like to help you become better writers through your class assignments, because you will need this skill in your professional careers.
3. A study is an experiment – something that is tested, not just something one thinks about and not just a theoretical argument.
4. An explanation is not a summary. It is supposed to clarify, interpret, or justify why something happens, or discuss possible causes. It is not simply a description.

Note that for this assignment, I've asked you to conduct library research to identify other/current research that is related to or extends the lecture you heard (see Assignments module on ELMS). If you haven't learned how to use library databases yet to identify peer-reviewed research publications, please do either (or both) of the following:

- Consult the Libraries' [Guide to Information Resources](#)
- Come see me, Lauren, or Megan at (c)office hours – we love visitors!

## **Help**

### Disabilities

If you require any special accommodations in this class due to a physical disability or a learning difference, please bring this to our attention and provide us with any necessary documentation as soon as possible so that we can make appropriate arrangements. In addition, students should contact the Office of Disability Support Services (DSS) to document their disability and identify appropriate accommodations. DSS provides a variety of services to students with disabilities; the staff is available to consult with students at any time. Please visit [www.counseling.umd.edu/DSS](http://www.counseling.umd.edu/DSS) or call (301)-314-7682 for further information.

### Other Assistance

The University of Maryland offers a variety of services for students in need of either educational or psychological assistance. **Learning Assistance Service (LAS)** offers services and programs on writing skills, English as a second language, study and time management skills, math learning skills, and issues for students over 25 years of age. They also offer a range of handouts, which are available on-line. If you need other educational services or support, please contact me for additional resources.

*LAS is located in the Counseling Center*

2202 Shoemaker Building

Office Hours: Monday-Friday 8:30 a.m - 4:30 p.m.

<http://www.counseling.umd.edu/LAS/>

If you are experiencing personal stress that is interfering with your ability to succeed, please consider contacting the [Counseling Center](#) (above) or the [Mental Health Service at the University Health Center](#) (below) for an appointment. The Counseling Center also offers on-line resources on a series of topics.

*University Health Center, Mental Health Service*

2<sup>nd</sup> Floor, University Health Center (across from the Stamp Student Union)

301.314.8106

[www.health.umd.edu/mentalhealth](http://www.health.umd.edu/mentalhealth)

For other, related campus resources (e.g., libraries, tutoring, campus chaplains, student success office, peer counseling, campus advocates, etc.) please also see

<http://www.ugst.umd.edu/courserelatedpolicies.html> and click on Campus Resources.

## **Academic Integrity**

It is your responsibility to be familiar with and abide by the University's Code of Academic Integrity. Any suspected instances of academic dishonesty will be taken very seriously and may be referred to the Student Honor Council.

Academic dishonesty includes, but is not necessarily limited to: submitting someone else's work as your own; falsifying information or using unauthorized materials in any assignment or exam; unacknowledged and/or unauthorized collaboration or sharing of answers on assignments; helping another student to commit an act of academic dishonesty; and failure to properly acknowledge any source from which you obtain ideas or examples, whether or not you paraphrase or quote it directly. This last rule applies to any published or unpublished sources you consult, including webpages, classmates, journal articles, and lectures or discussions in other classes. All homework assignments **MUST** be done independently unless the instructions on the assignment clearly specify otherwise. Failure to follow this policy constitutes academic dishonesty and you will receive a zero for the assignment and/or be referred to the Honor Council. For the university's official policy on academic integrity, including cheating and



plagiarism, please visit <http://www.ugst.umd.edu/courserelatedpolicies.html> and click on Academic Integrity.

**Please see the Syllabus Supplement on Ethics under the Syllabus tab on ELMS (it's a pdf file). It's a short primer on different types of plagiarism and how you can (and must) avoid it. Please let me know if you have questions!**

## Proper use of technology

Please, no cell phones during class for any reason. Laptops may be used for taking notes, but should not be used to check email, Facebook, etc. during class time. These uses of technology are disruptive to other students and negatively affect not just your learning, but *their* learning as well. So, please be respectful. Besides, you should enjoy this special time we share together instead of being distracted by those who aren't presently with us.

## Bonus!

### Extra Credit

Extra credit will be given in exchange for research exposure, and can take one of two forms. In either case, the extra credit will allow you to replace your lowest score from an *attempted* article review or an attempted quiz, whichever is lower (i.e., I will not replace a quiz or article review if you don't turn it in – you must take all quizzes). You may complete *one* of the following activities for credit. No more than one single assignment will be replaced by this extra credit assignment in this class in exchange for research exposure. Assignments will *not* be eligible for replacement if a score of 25% or lower is earned. You must actually attempt the assignment or quiz for it to be potentially replaced.

1) You may participate as a subject in a research experiment by a faculty member or graduate student on a language related topic, and then write a half-page summary of the goals of that research project (Under Assignments on ELMS, please see the Extra Credit file for question prompts). You also need to turn in a signed form from the experimenter saying that you participated; blank copies are available on the course web site. (To maintain equity, there will be no “double-dipping” allowed – that is, you cannot receive any other form of credit (for another class, or for pay) for any session which serves as extra-credit for this class. If an experiment requires multiple visits, however, you can receive extra-credit for this class along with payment for the completion of the remainder of the study.)

2) You may read a language-related research article from a recent volume of *Journal of Memory & Language*, *Applied Psycholinguistics*, *Brain and Language*, *Cognition*, or the *Journal of Child Language*, *Bilingualism: Language and Cognition* and write a 2- to 3-page summary and critique of the article. (Other journals may also be acceptable; please see me for prior approval). These are due by the start of the last day of class. You will need to turn in a copy of the article itself, as well as your critique.

**\*\*Also, there will be a surprise extra-credit opportunity toward the end of the semester. I'll tell you about it then – but stay tuned! It will require some good faith and a bit of cooperation, but it's easy!\*\***

### **Course evaluations**

Your feedback at the end of the semester is important! In addition to providing me with valuable information for future semesters, completing the course evaluation has a direct benefit for you and other students: if enough students participate then partial results will be made available to all students on campus who have completed their evaluations; likewise, you will be able to view the results for other courses you may be considering taking. Completing your evaluations makes this process work for everyone. You can find the online evaluation system here: <https://www.irpa.umd.edu/Assessment/CourseEval/StuFastFacts.html>

Additionally, in the middle of the semester, I will ask a few informal questions for you to answer anonymously so I can gauge how things are going. I will want to know in particular what is working well, what's not working well, and what both you and I can do to make your course experience better. I will do my best to improve whatever I can for the remainder of the semester. I am known to take students' comments very seriously and respond accordingly!

### **Provisional schedule (subject to change):**

<b>Date</b>	<b>Topic</b>	<b>Reading</b>	<b>Assignments Due? Quiz?</b>
August 30	Introduction: This syllabus	Please read syllabus	
September 1	What is psycholinguistics?	Chapter 1	
September 6	Language Science Tools: How do we study it?	Chapter 2 and QALMRI handout	
September 8	Properties of Language	Chapter 2 (pg. 9-31)	
September 13	Biological Foundations of Language 1 (Brain Lateralization)	Chapter 3; and Kutas & Hillyard (1980)	

September 15	Biological Foundations of Language 2 (Aphasia)	Chapter 3	<b>Quiz 1</b>
September 20	Biological Foundations of Language 3 (Methods) – Special guest lecture by Dr. Nina Hsu	Chapter 3	
September 22	Language & Thought	Chapter 12 (pg. 492-509)	<b>Article Review 1 due (Kutas &amp; Hillyard, 1980)</b>
September 27	Speech Perception (& start section on Learning speech sounds as an infant)	Chapter 4; and Saffran, Aslin, & Newport (1996)	<b>Quiz 2</b>
September 29	Learning speech sounds as an infant	Chapter 4	
October 4	Word learning in infants	Chapter 5	<b>Article Review 2 due (Saffran, Aslin, &amp; Newport, 1996)</b>  <i>**Note, this is Day 2 of Rosh Hashanah. If you celebrate this day of the holiday and won't be able to complete the assignment by today, please do not worry. Just let me know as soon as possible (during the <a href="#">schedule adjustment period</a>) so we can make a separate arrangement for when to turn it in<sup>3</sup>.**</i>
October 6	Midterm 1 Review	<i>Come to class with your questions!</i>	<b>Quiz 3</b>

<sup>3</sup> If there are other assignments due during a multi-day holiday you celebrate that I may have overlooked, please let me know within the schedule adjustment period if it will interfere with your ability to complete that assignment on time so we can accommodate.

October 11	<b>Midterm 1</b>	<i>Bring your 3 x 5 card (with your name on it)!</i>	
October 13	Word Recognition	Chapter 7	
October 18	Word Recognition	Chapter 7	<b>Article Review 3 due (Cartmill et al., 2013)</b>
October 20	Sentence Processing 1	Chapter 6 (p. 185-200); Chapter 8 (p. 279-287; 295-312)	
October 25	Sentence Processing 2	Chapter 8 (p. 313-319) <u>optional readings</u> : Trueswell & Gleitman chapter (2004); Altmann (1998) review	<b>Quiz 4</b>
October 27	Sentence Processing 3 (cognitive control, brain)	Chapter 8 (p. 320-323)	
November 1	Midterm 2 Review	<i>Come to class with your questions!</i>	
November 3	<b>Midterm 2</b>	<i>Bring your 3 x 5 card (with your name on it)!</i>	
November 8	Bilingualism and Cognition	Box 7.3 in Chapter 7; Bialystok (2009) review article (see Bilingualism module on Canvas)	
November 10	Bilingualism and Cognition: Special guest lecture by Dr. Jared Linck, CASL	Box 7.3 in Chapter 7; Bialystok (2009) review article	<b>Article Review 4 due (Tanenhaus et al., 1995)</b>
November 15	Language Production	Chapter 9	
November 17	<b>No class. Professor Novick away at a conference</b>		

November 22	Language Production	Chapter 9	<b>Quiz 5</b>
November 24	<b>No class. Happy Thanksgiving!</b>		
November 29	Language Production	Chapter 9	
December 1	Pragmatics	Chapter 11	<b>Quiz 6</b>
December 6	Pragmatics	Chapter 11	
December 8: <b>last class</b>	Wrap-up and Final Review	Bring questions!	<b>Research Extra Credit <u>AND</u> Research in the Community Paper Due</b>
December 14: <b>8-10am (yikes). Location TBA</b>	<b>FINAL EXAM.</b> It's mercilessly early so bring your coffee!	<i>Also bring your 3 x 5 card (with your name on it)!</i> And, good luck!	

### Suggested Additional Readings (optional)

#### Great books

Altmann, G.T.M. (1997). *The ascent of Babel: An exploration of language, mind, and understanding*. Oxford: Oxford University Press.

Pinker, S. (1994). *The Language Instinct*. New York: Harper Perennial Modern Classics.

#### Relevant chapter/review for sentence processing lectures (available in the Understanding Sentences module on Canvas)

Altmann, G.T.M. (1998). Ambiguity in Sentence Processing. *Trends in Cognitive Sciences*, 2(4), 146-152.

Trueswell, J.C. & Gleitman, L.R. (2004). Children's Eye Movements during Listening: Developmental Evidence for a Constraint-Based Theory of Sentence Processing. In J.M. Henderson & F. Ferreira (Eds.) *Interface of Vision, Language & Action: Eye movements and the visual world*. New York: Psychology Press.