Speech, Hearing & Phonetic Sciences, UCL SSC0158 Science of Talking Week 8 – Student Presentations



Overview

The last week of the course is taken up with presentations made by groups of students. The aim is to give you an opportunity to research one particular speech production topic in a little more depth and present your findings to the rest of the class. Your presentation will also contribute towards your overall mark for the course.

Presentations

- □ Groups will be of three or four students.
- Presentations should be no longer than 15 minutes including time for questions (1-2 minutes).
- We will provide an overhead projector, a laptop and speakers with PowerPoint, a data projector, and various audio players. You can bring a PowerPoint presentation on CD, USB memory stick or you can FTP it from another system.
- □ If you are bringing a PowerPoint presentation, be sure to come to the lab before 2pm on the day to install it and check it.
- □ To prepare your talk, use the Web and our library (second floor) to find relevant information, pictures and sounds.
- □ A list of references is given at the end of this document. Please contact Fang Liu (<u>fangliu@gmail.com</u>) if you need further assistance.
- □ Make your talk both informative and entertaining. Try to use real examples to help explain concepts.
- □ We will combine tutor and peer assessment of your talk in your overall grade.

Topics

These are suggestions for presentation topics:

- 1. Structure of the larynx and its function in speaking.
- 2. The source-filter model of speech production.
- 3. Differences between the sounds of English and other languages.
- 4. The nature of 'clear speech' and its effect on intelligibility for various listener populations.
- 5. Language and music.
- 6. Disorders of speech production.
- 7. How do we express emotion in speech?
- 8. How do children learn to speak?
- 9. The evolution of speech.
- 10. Suggest your own topic!

Sources of Information for SSC Student Presentations

Note: If the link doesn't work, please copy and paste the URL in your web browser.

1. Structure & Function of the Larynx

- Sasaki, C. T. (2006). Anatomy and development and physiology of the larynx. GI Motility online. doi:10.1038/gimo7.
 <u>http://www.nature.com/gimo/contents/pt1/full/gimo7.html</u>
- SIPhTrA Tutorial on the basics of voicing: <u>http://www.phon.ucl.ac.uk/cgi-bin/wtutor?tutorial=siphtra/vb1.htm</u>
- Raphael, L. J., Borden G. J., & Harris, K. S. (2007). Speech Science Primer: Physiology, acoustics, and perception of speech. Lippincott, Williams, & Wilkins. (in Library)

2. Source-Filter Model

- Kevin Russell: http://home.cc.umanitoba.ca/%7Ekrussll/138/sec4/source.htm
- Haskins labs: http://www.haskins.yale.edu/featured/heads/MMSP/acoustic.html
- Raphael, L. J., Borden G. J., & Harris, K. S. (2007). Speech Science Primer: Physiology, acoustics, and perception of speech. Lippincott, Williams, & Wilkins. (in Library)

3. Sounds of the World's Languages

- Ashby, M., & Maidment, J. (2005). Introducing phonetic science. Cambridge: Cambridge University Press. <u>http://www.cambridge.org/uk/linguistics/cill/resources/ipswebhome.htm</u>
- Ladefoged, P. (2006). A Course in Phonetics. Wadsworth. <u>http://www.phonetics.ucla.edu/course/contents.html</u>
- Ladefoged, P. (2005). Vowels and Consonants. Blackwell Publishing. http://www.phonetics.ucla.edu/vowels/contents.html
- Ladefoged, P., & Maddieson, I. (1996). The Sounds of the World's Languages. Wiley-Blackwell. <u>http://archive.phonetics.ucla.edu/</u>

4. Clear speech

 Smiljanic, R., & Bradlow, A. R. (2009). Speaking and hearing clearly: Talker and listener factors in speaking style changes. *Linguistics & Language Compass*, 3, 236-264. http://faculty.wcas.northwestern.edu/ann-bradlow/Smiljanic-Bradlow-Lang&LingCompass-2008.pdf

5. Language and music

Peretz, I. (2009). Music, language and modularity framed in action. *Psychologica Belgica*, 49, 157-175.
 http://www.brams.umontreal.ca/plab/downloads/Peretz_2009_PsychologicaBelgica.pdf

- Patel, A. D. (in press). Language, music, and the brain: A resource-sharing framework. In P. Rebuschat, M. Rohrmeier, J. Hawkins, & I. Cross (Eds.), *Language and music as cognitive systems*. Oxford: Oxford University Press. <u>http://vesicle.nsi.edu/users/patel/Patel_LMCS_in_press.pdf</u>
- Berkowska, M., & Dalla Bella, S. (2009). Acquired and congenital disorders of sung performance: A review. *Advances in Cognitive Psychology*, 5, 69-83. <u>http://www.mpblab.vizja.pl/documents/publications/Berkowska_Dalla_Bella_2009b.pdf</u>

6. Speech Disorders

- Levelt, W. J. M. (2001). Spoken word production: A theory of lexical access. *PNAS*, 98, 13464-13471. http://www.phon.ucl.ac.uk/courses/spsci/SSC talking/material/week 06/Levelt2001.pdf
- Kent, R. D., Weismer, G., Kent, J. F., Vorperian, & Duffy, J. R. (1999). Acoustic studies of dysarthric speech: Methods, progress, and potential. *J. Commun. Disord.*, 32, 141-186.
 http://www.phon.ucl.ac.uk/courses/spsci/SSC talking/material/week_06/Kentetal1999.pdf
- Kent, R. D., Kent, J. F., Weismer, G., & Duffy, J. R. (2000). What dysarthrias can tell us about the neural control of speech? *Journal of Phonetics*, 28, 273-302. <u>http://www.phon.ucl.ac.uk/courses/spsci/SSC_talking/material/week_06/Kentetal2000.pdf</u>

7. Emotion in Speech

- Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological Bulletin*, 129(5), 770-814.
 http://www.brainmusic.org/EducationalActivitiesFolder/Juslin emotion2003.pdf
- ISCA Tutorial and Research Workshop (ITRW) on Speech and Emotion. <u>http://www.isca-speech.org/archive_open/speech_emotion/index.html</u>
- Search Google for "Banse and Scherer" who have done many large studies on this

8. Child Language Acquisition

- Mark Liberman:
 - http://www.ling.upenn.edu/courses/Fall_2003/ling001/acquisition.html
- Child Language Data Exchange System (CHILDES): http://childes.psy.cmu.edu/
- Macneilage, P. F. (1997). Acquisition of speech. In W. Hardcastle, & J. Laver (Eds.), *The Handbook of Phonetic Sciences*, Blackwell, pp. 301-332. (in Library).

9. Evolution of speech

- Fitch, W. T. (2000). The evolution of speech: a comparative review. *Trends in Cognitive Sciences*, 4, 258-267. http://www3.isrl.illinois.edu/~junwang4/langev/localcopy/pdf/fitch00speech.pdf
- Lieberman, P. (2007). The evolution of human speech: Its Anatomical and neural bases. *Current Anthropology*, 48, 39-66. http://artsci.wustl.edu/~hpontzer/Courses/Lieberman2007CurrentAnth_Speech%20Review.pdf