Sound of mind: electrophysiological and behavioural evidence for the role of context, variation and informativity in human speech processing

Nixon, J.S.

STELLINGEN

of the thesis

SOUND OF MIND: ELECTROPHYSIOLOGICAL AND BEHAVIOURAL EVIDENCE FOR THE ROLE OF CONTEXT, VARIATION AND INFORMATIVITY IN HUMAN SPEECH PROCESSING

by

JESSIE SOPHIA NIXON

1. Both production of speech and visual processing of written text involve simultaneous processing of multiple levels of phonological information.

   – *Chapter 2, this dissertation*

2. The time course of processing of the different levels of phonological information differs between speech production and visual processing of written text.

   – *Chapter 2, this dissertation*

3. Processing of speech sounds during reading aloud is context-dependent. In Chinese, the same character may be processed differently depending on the tones of the surrounding characters. This is reflected in the neural activity very rapidly after stimulus onset.

   – *Chapter 4, this dissertation*

4. During priming studies, processing is affected by individual item characteristics, such as word frequency, of both the prime and target.

   – *Chapter 4, this dissertation*

5. Analysis of electrophysiological data in which there are multiple items can benefit from including random effects of items in the analysis.

   – *Chapter 4, this dissertation*

6. The degree to which an acoustic cue is utilised during speech perception is continually and rapidly updated.

   – *Chapter 5, this dissertation*

7. The degree to which an acoustic cue is utilised during speech perception is updated depending on how effective the cue is in discriminating between alternative messages.

   – *Chapter 5, this dissertation*

8. Sometimes we say one thing; sometimes we say another. This can occur at varying velocities (measured in milliseconds between stimulus presentation and speech onset).

9. In the process of saying one thing or another, there is often a negative correlation between the afore-mentioned velocity and the number of electrons reaching our scalp from inside our brain.

10. Ask a silly question; you'll get a silly answer. *"For to a folysshe demaunde behoueth a folysshe ansuere."*

– Aesop's Fables, 1484