Nature of experiments: Recording of articulatory movements with an alternating magnetic field movement transducer system. The subject has a transmitter assembly secured to her/his head with a headband. Three transmitters generate alternating magnetic fields in the frequency range 60-80 kHz. The fields are intercepted by small receiver coils which are glued to the tongue, lips, jaw, etc. and are connected to electronics with fine wires. The subject reads a number of utterances while the movement transducer signals and an acoustic signal are being digitized. In addition, a simultaneous video recording is made of the subject’s face. For some experiments, the subject will also be asked to make MRI (Magnetic Resonance Imaging) recordings of the vocal tract at the Imaging Center of the Mass. General Hospital. Subject screening includes having a dental impression made of the upper jaw.

Requirements: Subjects should have normal speech and hearing and be native speakers of Americans English, French or Hungarian. Also required are patience and tolerance of having instruments and transducers placed in the mouth. MRI recordings need to be made at odd hours and for them, it is highly desirable to have very few metal dental fillings.

Duration: Three hours or less for each type of recording.

Pay: $20 per hour for all time spent.

Contact: Dr. Perkell (253-3223 or perkell@speech.mit.edu) or Dr. Matthes (253-3593 or melanie@speech.mit.edu)