**Project 2: Computational Tool Development ("ASR Transcription Project")**

* **Primary Goal:** To create an automated, user-friendly pipeline for phonetic and phonological analysis.
* **Core Functionality:** The tool would take an audio file and produce a richly annotated TextGrid with multiple tiers:
  1. **Breath Groups/Phrases:** Segmented audio.
  2. **Phrases (ASR):** Automated Speech Recognition transcript.
  3. **Words:** Tokenized words.
  4. **Phonemes:** The expected "standard" pronunciation.
  5. **Phones:** The *actual* pronounced sounds (this is a key innovation).
  6. **(Potential) Syllables Tier.**
* **Additional Features:**
  1. A modular data extraction script that allows researchers to select which acoustic measures they want (e.g., HNR, pitch) and outputs them to a spreadsheet.
  2. The ability to generate a timestamped transcript.
  3. Designed to be accessible to non-computational linguists.
* **Connection to Other Projects:** This tool is the **engine** for Project 1. Your interview data is the perfect test case for developing and validating the tool.