Despite great phonemic variation among different language varieties, speakers of the same language are able to understand each other.

Perceptual learning of a new linguistic variety is achieved by exposure to multiple talkers of that variety (Clopper & Pisoni, 2004; Kraljic, Brennan & Samuel, 2008).

Some type of “desirable difficulty” enhances learning (Bjork & Kroll, 2005).

It is not clear what constitutes desirable difficulty when learning phonemic variation or if it will be beneficial.

This study focuses on perceptual learning in the aspiration of the final /s/ present in some varieties of Spanish.

Participants: 136 Spanish monolinguals of Bogota, a variety of Spanish that realizes word final /s/.

Materials:

- **Blocks**:
  - **Learning Block**: Exposure to one of the conditions (44 experimental items)
  - **Testing Block**: Sentences consistently aspirated (10 experimental items)
  - **Control Block**: Sentences consistently realized (10 experimental items)

- **Conditions**:
  - Single Speaker Inconsistent
  - Multiple Speakers Consistent
  - Multiple Speakers Inconsistent

Inconsistency among multiple speakers appears to hinder long-term learning of perceptual cues.

Both multiple consistent and single inconsistent trainings reach a high level of learning – difficulty not hindering learning.