Class Activities

# Chapter 9: Visual Imagery and Spatial Cognition

## 1. The McGurk Effect

To help students understand the McGurk Effect, perform an activity in class that not only demonstrates the perceptual error but also proves to them that our eyes trick us into hearing something that is not necessarily there.

First, pull up the YouTube video below. Then, ask students to shut their eyes and listen to the sound produced by the woman (first 9 seconds of video), and then stop the video and ask them what they heard. Then, move to the 16 second mark and play the video to 25 seconds again while students have their eyes shut. Like before, ask the students what sound they heard.

Now, repeat the steps above, but this time with the students eyes open. You should find that when their eyes were closed they heard the same sound in both clips, but when they listened with eyes opened they heard “BA” and “FA” respectively.

<https://www.youtube.com/watch?v=_UzWeZZ9XeQ&t=14s>

## 2. Create a New Language

For most children, the acquisition of language is natural and effortless. Adults, however, have great difficulty in learning new languages and may never pass as a native speaker regardless of how intensively they study the language. This exercise is designed to help students understand the complexity of language. Students will work in small groups to develop a novel language, and then later teach their language, as well as learn a language, and then report on their experience. To make this exercise meaningful, I’d recommend working on this over a couple of class periods. Perhaps having the first class period devoted to developing the language, and the second class period teaching/learning language.

First, divide students into small groups and have students develop a novel language using the following instructions:

1. Create an alphabet. Keep this simple, so there are 20 symbols or less, and that each symbol has a unique sound. (Do not allow two or more symbols to have the same sound. For example, the in the word “cake,” both /c/ and /k/ have the same sound.)

2. Create words and grammar. A language must include grammar such that there are words for various verbs, nouns, adjectives, as well as rules for making nouns plural, changing tense, etc.

3. Add your own flair! Many languages have other rules, both formal and informal, that you may want to include in your language. For example, in English, punctuation always ends a sentence, but in Spanish, a question mark or exclamation point may also begin a sentence. Also, many languages have slang and informal expressions.

After groups have created their language, pair two groups together and have each group teach their language to the other. Have both groups report back about their experience as teachers and learners of a new language.

## 3. Language Fluidity Demonstration

It is a common misconception of native English speakers that, in contrast to the English language, the Spanish language is completely fluid and has no sound breaks. The purpose of this class demonstration, therefore, is to show that both languages are equally fluid.

For this demonstration, you will have to create two video clips of an individual speaking a short sentence (10 words or so). In one of the videos, the speaker will speak the sentence in English, and in the other video, the speaker will speak the sentence in Spanish. In each video, the speaker should speak the sentence at their normal conversation rate.

You will then present the demonstration to the students by telling them they will see two videos of a person speaking a sentence (do not tell them one is English and one is in Spanish just yet!). Then, tell them their job will be to carefully watch the speaker’s mouth to try to keep track of how many words the speaker is speaking. Let them know that this may be a little tricky because the video will be played with no audio.

After each video is presented, ask the students how many words were spoken in each video. Let them know how many words there actually were in each video and then discuss. At this point, you have the opportunity to discuss the fluidity of language, and that with no audio, it is very difficult to discern any word breaks.

Then, replay each video, but this time with the audio on. Students will be surprised that the videos were in two different languages, and this should affect their perception of the speech patterns between the English and Spanish languages. It’s a great learning experience not only for the topic of language but also for cultural diversity.