

Using Embodied Semantics to Help ELLs Acquire Action-Related Vocabulary

by Patrick T. Randolph



Introduction

What does the concept of embodied semantics have to do with physical actions and the corresponding ideas of those actions? According to Aziz-Zadeh and Damasio (2008), the physical world and the conceptual world are tied together by the reality of embodied semantics in a very intimate and profound way. Given this new research, embodied semantics has very significant consequences for vocabulary pedagogy. In order, then, to understand what embodied semantics is and how it relates to vocabulary acquisition, I will first explain the term and then show how I utilize the concept in my Intensive English Program courses and my advanced university credit-bearing classes when I focus on teaching action-related lexical items.



Embodied Semantics

The notion of embodied semantics has essentially brought to light the fact that the sensory-motor areas of the brain that help us perform any number of physical-related actions also create the conceptual ideas of those same physical actions (Aziz-Zadeh & Damasio, 2008). So, if we use the action and concept of “holding an apple” as an example, then the actual area of the brain (the sensory-motor region of the frontal lobe) that performs and controls the action of holding the apple is the same area that allows us to conceptualize the idea of holding that delicious piece of fruit. In short, the action and the concept of the action are housed in the same region of the frontal lobe—one element functioning unconsciously and the other consciously.

What makes all of this even more interesting is that neuroscientists have found that the above mentioned sensory-motor area also reacts when it encounters action-related verbs within English idioms. “According to the embodied semantic hypothesis, when we say, hear, or read these expressions, we actually activate the motor areas of our brain concerned with the actions performed with those body parts” (Iacoboni, 2009, p. 93).

The consequences of tapping into the internal dynamics of embodied semantics are truly extraordinary. For it means that when we employ the body to act out the lexical items (i.e., create gestures or facial expressions) while simultaneously conceptualizing the actions (i.e., imagining them visually in the mind’s eye), then the terms are significantly reinforced during the encoding phase of learning. The use of embodied semantics becomes a whole-body-brain-mind activity, one that will most certainly help strengthen the neural pathways that encode the lexical items studied in class.

Setting the Foundation with the Head-to-Toe Method of Associations for Vocabulary Acquisition



Before I use the embodied semantics component when teaching action-related vocabulary, I always begin by first using the six major tools of my own Head-to-Toe Method of Associations for Vocabulary Acquisition. These include (1) eliciting a term’s definition through offering a number of example sentences; (2) identifying its part of speech; (3) assigning its verbpathy (i.e., a term’s intuitive positive or negative feeling); (4) connecting or linking a color with the term; (5) assigning a certain emotion to the term; and (6) associating or connecting the term with a particular body part, body region, or organ. For a detailed explanation of this process, see Randolph (2016a). Now let’s take a look at how I work through the process of applying the concept of embodied semantics to lexical items. For the purpose of this article, I will use the word “smile” as our example.



Using Embodied Semantics in Action-Related Vocabulary Lessons

- **Pronunciation—Feeling the Term Through Sound**

First, I ask the students to repeat the lexical item we are learning about three times (more may be desirable for lower levels). It's important that they understand the term via the six components beforehand, because that foundation helps them "feel" and "internalize" the term as they repeat it. However, when a term like "blissful" or "glide" is taught, students can often come close to guessing its meaning by the unique sound it makes. In such cases, pronunciation of a term can be done before defining it. For more on this, see Randolph (2017). It should also be noted that the more difficult a term's pronunciation is, the more times it might need to be repeated. In any case, as pronunciation is an important step, students should really focus on it, and the instructor ought to monitor the class to make sure all the students are participating in the pronunciation process.

- **Action and Pronunciation—Acting Out the Understanding**

Second, I ask the students to repeat the term again, but this time while they create and perform a gesture or facial expression that outwardly illustrates the meaning of the term. So, they not only repeat it three more times, but they also perform a corresponding gesture or facial expression. This gets them to develop an intimate connection with the term by connecting their body to it. In the case of our example word, "smile," this would mean saying "smile" and smiling three times or gesturing a smile with their hands or fingers. The more our students can associate their bodies with a term or find a relation between their bodies and a lexical item, the more concrete and personal the term becomes. And, by doing so, the abstract quality of the word disappears and is replaced by a tangible, unique relationship (Randolph, 2015; Randolph, 2016a).

- **Pronunciation, Gesturing, and Showing—Reinforcing the Understanding**

Third, I have the students turn and face a neighbor and "show" the term's gesture or facial expression while pronouncing it. This can be done as many times as they wish, but it should be "performed" a minimum of three times in order for the students to effectively combine the sound of the term with the gesture or facial expression; this will help them develop a dual sound and motion understanding of the lexical item. For a term like "smile," this step is very powerful due to the term's emotional value. Moreover, in watching a classmate say and act out the term, the observing student's mirror neurons (the neurons that simulate actions and sounds) will react

immediately to the pronunciation and performance of the term. This experience will positively influence the encoding process and reinforce the meaning and use of the lexical item in question because the mirror neurons aid in simulating the meaning through the action and also through the sound recognition of the term. For more on this, please see Randolph (2016b).

- **Creating Examples in the Mind’s Eye—Conceptualizing the Term**

Fourth, I next ask the students to close their eyes and imagine a situation using the term. Here, they create a scene that uses the term and the meaning of the term in their mind’s eye. For instance, they might see a classmate entering the room with a smile, or see themselves smiling while out for a weekend walk. These scenes can be based on pure imagination or a memory of an actual experience. The more vivid the scene that they imagine, the more effective this will be for “feeling” and encoding the term.

- **Conveying the Example—Sharing the Concepts**

Fifth, I have the students turn to their neighbor and share the scene that they “imagined” or “experienced” in their mind’s eye. Instead of being asked to give an example with their eyes focused on the board, having them close their eyes and “see” it first in the mind’s eye seems to help considerably in naturally constructing example sentences. Recent examples have been: “I saw myself smiling at my mom and dad at the airport,” “My sister smiled at me in a dream,” and “I saw myself smiling because it’s Friday.” I often ask the students to share their examples with the whole class so that everyone can hear the term’s pronunciation multiple times and also experience hearing the students’ unique, engaging, and entertaining sentences.

- **Written Examples—Putting the Action and Concept into Writing**

Sixth, I ask the students to write their “mind’s eye examples” down on a vocabulary worksheet. These are later checked for proper word use and grammar. Having the students create and write the examples in class has many benefits. First, it is “immediate” and they reap the benefits of writing down an idea that has culminated after their “full-body” and mind experience. Second, there is a tendency to use themselves or friends in the examples, thus making the terms more concrete and real. Third, it keeps them from going online to use dictionary examples, which almost always results in plagiarism. And fourth, the students seem to use and pick up on the communal energy in the room, and they are consequently motivated and eager to write.



Concluding Remarks

Being aware of the concept of embodied semantics opens an intriguing door to a whole new world for vocabulary pedagogy. By activating both the physical and conceptual components in the sensory-motor region of the brain, our students are able to “feel,” “act out,” and “imagine” the essence of a lexical item’s meaning. Through these intimate moments with the terms, the students can create visual examples and then turn these into spoken and written ones. The multifaceted use of this process helps our students construct a number of associations and methods to both learn and use the terms. This, of course, will assist in strengthening the neural connections related to each term and provide a solid webbing from which they can build on as language learners and users of English.

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