

Teaching concepts of pronunciation: syllables, stress and drunk snails

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At the heart of my research into pronunciation teaching lies the understanding that the way we speak depends on our phonological concepts (phonemes, syllables, stress, etc.). Because these concepts vary from language to language, when we learn to speak a new language we also have to learn the related phonological concepts. These concepts are a pre-requisite to successfully categorising the sounds of the language (Fraser, 2006). Here, I will address the question as to how we as teachers can help learners to form these concepts, taking examples from teaching syllables, supported by the drunk snail game (an information gap activity), and teaching stress.

I will begin with an outline of the theoretical rationale for teaching phonological concepts followed by a very brief summary of findings from my thesis which supported this theoretical position and led to a set of guidelines for teachers. During the course of this research I also developed a particularly successful and popular activity, the drunk snail game, which I would like to share with my fellow teachers. Finally I will present examples from a recently completed research project to show how this approach can be extended to the teaching of stress at both the word and utterance level.

The theory

There is no question that in teaching pronunciation we are interested in the finished product, that is, the degree to which our students achieve their pronunciation goals, whether these are to become more intelligible and comprehensible, or to acquire a certain accent. However, I am also interested in what is behind improving learners' performance. An important source of inspiration for this comes from work done in the area of L2 speech research, most notably Flege's (1995) Speech Learning Model which suggests that adults are able to form new categories, and reset the boundaries of old ones, to cater for the phonemes of other languages. This model suggests that it is possible for adults to learn L2 pronunciation, and it supports usage-based theories of language such as Cognitive Linguistics,

and the related sub-fields of Cognitive Grammar and Cognitive Phonology.

Cognitive Grammar is based on the premise that the cognitive abilities required for language are similar to those used on other cognitive tasks. Instead of beginning with a theory of language acquisition, it begins with what is known about cognition and uses that to build theories of language acquisition. Pronunciation depends on the ability to categorise and is therefore a cognitive phenomenon which is 'grounded in the human ability to produce, perceive, and above all, to categorise sounds, and to form mental representations of sounds' (Taylor 2002:79-80). These mental representations of categories, rather than the categories themselves, are referred to as concepts, and it is these concepts which allow us to categorise (Murphy 2002). Because these phonological concepts are language specific, when we learn a new language we have to learn how the speakers of that language conceptualise, or think about its categories. The question this article addresses is how we as teachers can help learners to form these concepts in order to accurately categorise the sounds of the new phonological system.

Both Langacker (2000) and Taylor (2002) suggest a number of psychological constructs and cognitive abilities which might be relevant to language learning. These include things such as categorisation, figure-ground organisation, automatised, the ability to compare and detect discrepancy, focus on form, social behaviour, and the ability to form mental representations. While Cognitive Grammar provides a useful theory of language, Fraser (2006, 2010) discusses how this theory can be applied to practical classroom situations, i.e. how we can help learners to form concepts of L2 phonology and learn new categories. The idea of concept formation is well established in educational psychology and Socio-Cultural Theory (SCT), leading Lantolf (2011) to propose SCT as the ideal partner for Cognitive Linguistics in the development of language learning theory.

Summary of research findings

The pronunciation focus of the research projects I undertook during my PhD was on the difficulties many learners were observed to have with syllable codas. Specifically they tended to add an extra vowel sound after a consonant, e.g. 'drunk' sounds like 'drunker' (known as epenthesis) and/or inappropriately omit consonants in syllable codas (absence). The learners in all of these studies were adult New Zealand residents with a range of L1s, but predominantly from East Asian countries such as China and Korea. They were taking high-intermediate ESOL classes at a New Zealand university with the intention of pursuing academic study or employment, or feeling more comfortable in New Zealand society.

In the first study of the PhD I analysed data for 50 students who received no explicit instruction in the pronunciation of syllable codas and found there was no change over one

semester (Couper, 2006). I also found that the differences in error rates between individuals were large and only partially influenced by L1 and other factors. This points to the fact that although L1 played a role, with East Asian students generally having the greatest difficulty, each individual is different and that the success or otherwise in naturally acquiring this feature of pronunciation is probably dependent on aptitude. So while some learners will naturally notice the salient differences there are others who don't. The second finding was that explicit instruction is of particular value to those who do not naturally pick up on these salient differences. Because this study employed a wide range of teaching techniques it was difficult to say what had helped to make it successful. However, a number of techniques were pinpointed as possibly being beneficial: awareness raising, critical listening, the right kind of metalanguage, helping learners to find rules and patterns, giving feedback and providing opportunities for further practice. It was also found that traditional textbook-type explanations of syllables in terms of consonant-vowel patterns were not effective because learners did not perceive that they were adding an extra vowel or omitting consonants. This suggested that raising awareness of the way native speakers perceived their pronunciation was helpful and that to successfully communicate about this it was important for the teacher to consider learners' perceptions.

The role of learners' perceptions was the focus of a second study in which I explored qualitatively what factors might help to make instruction effective (Couper, 2013). A number of potential variables were identified with two looking particularly promising: Socially Constructed Metalanguage (SCM) and Critical Listening (CL). SCM involves the teacher and students finding ways to communicate effectively about pronunciation, exploring differences in perception leading to the social construction of meaning. I will provide an example of how this is done in the next section. Critical Listening involves the learner in listening for the contrast between two productions: one which is acceptable and one which is not (Fraser, 2000). By making it clear how these differences affect meaning, this approach can help learners understand how the sounds are perceived by the native speaker. It involves a focus on developing speech perception, and learning where the boundaries are between the different phonological categories.

Finally I tested for the role of these variables in improving pronunciation in a quantitative study (Couper, 2011a). I found CL helped with perception, SCM with production and the two used together helped with both.

Overall, these studies led to the following guidelines for teaching (Couper, 2011b, p.13):

- Raise awareness of the nature of the problem; communicate explicitly and meaningfully about it (i.e. through SCM).

- Help form category boundaries by presenting contrasts between what the native speaker does and does not perceive as belonging to the category (i.e. through Critical Listening).
- Actively involve learners in the meaning making process (a broadly communicative approach).
- Practice: focus on forming concepts (i.e. compare and contrast, allow for feedback).
- Provide the right kind of corrective feedback (use SCM).
- Define instruction in terms of what helps learners to form and practice new concepts (e.g. SCM and CL).

Teaching activities

I used a wide range of activities during these studies but here I will focus on the teaching leading up to the use of the drunk snail game, an information gap activity described below.

To start with, in answering questions about a listening text a student says *it's a difficult* when they want to say *it's difficult*. I write the two phrases on the board and explain that to my ears, it sounds like *it's a difficult* pointing to and underlining the difference. I then model the two phrases, asking the student to tell me how they are different. Rather than saying there is an extra syllable, or an extra word, they suggest the 'ts a' in *it's a difficult* is longer, stronger, or louder. Alternatively, they might suggest the 'ts' in *it's difficult* is shorter, smaller, or quieter. This tells me that while I perceive an extra syllable, they simply perceive it as a different way of saying the same sound. In other words, we need to help the learners understand the salient differences between the two. To do this, I ask the student to say both phrases and I point to the one I hear. In giving them feedback, I can use the language they have already used to describe the differences between the sounds. So I might tell them to make the 'ts' shorter or quieter to help them produce *it's* rather than *it's a*.

What I have done here is to try and begin with the students' perceptions in finding ways to talk about pronunciation, to socially construct metalanguage. Of course, they still need a great deal of practice, especially if the incorrect pronunciation has become an entrenched habit. But once the learner understands how these two sounds are categorised differently by English speakers, they can remind themselves what they have to do to get the message across. Following on from this explicit instruction, I developed an information gap activity, the drunk snail game, in which accurate pronunciation is necessary to successfully communicate.

The Drunk Snail game

The idea of setting up an information gap activity is nothing new for teachers brought up in the era of communicative

language teaching. Equally, we understand the value of the social nature of games and how they can help to make learning fun. While this, along with my many years of teaching experience, helped me to develop the game, the real driver was thinking about how we can tap into cognitive processes to drive concept formation, essentially, applying the guidelines arising from my research findings.

This game draws on many of the cognitive capacities and psychological constructs put forward by Langacker (2000) and Taylor (2002) as assisting in concept formation. The game helps learners to focus on the salient features of English syllable codas, in cognitive linguistic terms this involves establishing appropriate figure-ground organisation. The idea of figure-ground organisation is well demonstrated through the sorts of visual perception puzzles in which you can look at a picture and, for example, see a young woman and then by moving certain lines into the foreground and others into the background you can see an old woman. By presenting these differences as meaningful it also becomes easier for learners to understand their salience. Its use of repetition and feedback on the effectiveness of communication helps learners establish categories through multiple experiences and takes advantage of the ability to compare and detect discrepancy. Through repetition and feedback the game also helps learners to entrench, or automatise, the target phonological concept. Finally, it presents learning as social behaviour, and takes advantage of the ability to focus on both form and meaning.

A drunk snail/A drunker snail	A loud parrot/A louder parrot
A flat fish/A flatter fish	A hot turtle/A hotter turtle
A fierce tiger/A fiercer tiger	A quiet bat/A quieter bat
A wet bird/A wetter bird	A fat cat/A fatter cat
A mild bull/A milder bull	A stout pig/A stouter pig
A fit pigeon/A fitter pigeon	A fast kea/A faster kea
A sick cow/A sicker cow	A wild horse/A wilder horse
A cute kiwi/A cuter kiwi	A kind wasp/A kinder wasp
A cold trout/A colder trout	A tough fly/A tougher fly
A sharp crayfish/A sharper crayfish	A sweet zebra/A sweeter zebra
A weak rabbit/A weaker rabbit	A wide sheep/A wider sheep
A soft toad/A softer toad	A big bee/A bigger bee
A mad dog/A madder dog	A sad spider/A sadder spider
A smug bug/A smugger bug	An odd frog/An odder frog
An old deer/An older deer	A large lizard/A larger lizard
A smart fox/A smarter fox	A meek lion/A meeker lion

Table 1. Comparatives describing animals.

For this activity I made up pairs of comparatives using consonant combinations which I had observed caused difficulties for the students in the first study. I chose pairs which could be pictorially represented using clip art. This led to descriptions of 32 animals as in Table 1. I presented these pairs accompanied with clip art on an OHT (although now of course I would use datashow). For the first pair I provided a background explanation as a way of reminding learners of the comparative:

This is a drunk snail. It drank too much beer. It was in my garden.

The snails like my lettuces so I give them beer. They drink the beer and drown.

This snail didn't drown. It got drunk. A drunk snail.

[Pointing to the next picture] *This snail drank even more beer. This one is a drunker snail.*

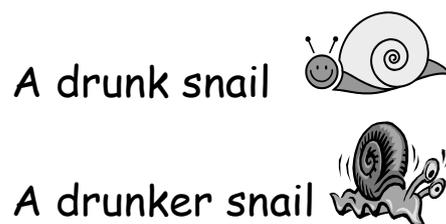


Figure 1: OHT of cards for the drunk snail game

I then went through the rest of the pictures and phrases on OHT checking the meaning and pronunciation. Some of the adjectives were not known by the learners so these were also taught. The students practiced by listening and repeating and getting feedback. They then went to the computer lab and recorded the pairs of words. Afterwards, in the classroom they listened to the recordings together as a critical listening exercise. Now they were ready for the game (Other students might not need such extended preparation, but for this group epenthesis was deeply entrenched and was clearly going to need a lot of practice to bring about change).

The game requires a set of cards for every group of four or five players. Each pack of cards contains a double set of the 32 pairs of comparatives, i.e. a total of 128 cards in all. To speed the game up one could of course use fewer pairs of comparatives. The idea is that in order to find matching pairs the learners have to be able to pronounce what is on their card correctly, and the others have to understand it correctly (See Appendix A for the rules). For example, one player says *I have a drunker snail* and another player says *I have a drunk snail too*. They then show their cards to check that they have pronounced and understood correctly. What often happens is that one of them actually has a *drunk snail* on his/her card which is where the showing of cards provides feedback. Especially in the initial stages, the teacher also has to monitor them quite closely. Before commencing, hand out the rules, and work through them with your students.

I first used this game with a high-intermediate group and found it provided additional vocabulary development as well as pronunciation work as they were not familiar with all the adjectives. I have also used the game with more advanced groups, including trainee language teachers. So far, all groups have found it useful and enjoyable and they haven't wanted to stop. If you want to use this game you can make your own cards, tailoring them to your particular students, or you can use mine, available on my blog: pronunciationteaching.wordpress.com

Stress: words, utterances and learners' perceptions

Since completing these studies I have been exploring how these ideas can be applied to the teaching of stress, both word stress and tonic stress (sometimes referred to as sentence stress). As with syllables, stress is also language specific, i.e. it is a phonological concept. This has led me to consider questions such as: How do we make learners aware of the nature of the English concept of stress?

To find out, I first ran a short study (Couper, 2012) into teaching word stress. I then ran a follow up study in which I taught word stress in a similar way but extended the teaching to include a focus on tonic stress. My teaching approach was similar to that described above, and I observed how we drew on each others' perceptions to create a dialogue leading to the co-construction of an understanding of word stress in English in comparison with the concepts of word stress in other languages. For example, the participants found there was a difference in their concepts of the syllable as some heard four or even five syllables in my name, Graeme, while others heard one, two or three. When listening for stress, they came to realise that the differences between a stressed and unstressed syllable were much greater in English than in other languages.

They described stressed syllables as longer and stronger and the unstressed syllables as softer or shorter. It was also evident that some participants focussed on the consonant rather than the vowel sounds, which also indicates quite a conceptual difference. For example, when Kay described the difference between *commit* said with the stress on the first versus the second syllable she described the stress on the second syllable as *t sound is very strong*. There was also evidence of a strong literacy bias (Linell, 2005), that is, the participants tended to focus on the spelling rather than the sounds. To overcome this we have to train our students to use their ears, not their eyes and knowledge of writing. One further observation worth mentioning here is that the participants became much more aware of the importance of word stress. Upon reflection, they observed that English speakers really struggle to understand them if they get the stress wrong. These insights, which arose from this approach to teaching grew out of dialogue, developing SCM, and using critical listening techniques, and provided me with the means to help participants both understand and produce word stress. The participants believed that as well

as becoming more aware of the nature and placement of lexical stress, they had improved in their production. Pre- and post-tests also indicated an improvement in the accurate use of word stress.

In the second study, in which I added a focus on tonic stress, I found the participants' comments on word stress were similar. With regard to tonic stress, they were not very sensitive to the prominence of the tonic syllable. Indeed when they listened to recordings of their own speech they didn't really notice when they had not used a tonic syllable. They also didn't notice when they inadvertently created contrastive stress, for example, Rob said: *The messenger told us about the plans*. However, he was not aware that he had placed the stress there, and neither was he aware of the change in meaning. Demonstrating how moving the position of the tonic syllable changes the focus and consequently the meaning did seem to raise their awareness. In trying to describe the differences between their own productions in comparison with a model, the participants did become aware that the model sounded *smooth* whereas their one sounded *cut*. They felt that this was as a result of their first languages, but by focusing on pausing they did become more aware of its importance and they were able to produce more natural sounding tone units. Pre- and post-tests also indicated improvements in their perception of stress.

Implications for teaching

The key feature of the approach I have taken is the focus on teaching concepts. This involves helping learners to explore their current concepts and those they already have from their L1s and compare them with the target language concepts. I have presented some examples of how different learners may talk about these concepts, which in turn leads to suggestions as to how teachers can help them to learn. Both learners and teachers need to distinguish between what we say, the physical sounds we produce, and what we think we say, which is of course affected by the phonology of the language. This theme, the nature of speech and the importance of understanding it is picked up and explored in greater depth by Helen Fraser (This issue). To summarise, we should begin by focusing on learners' perceptions, compare them with the target language concepts and through discussion socially construct metalanguage which can be used for ongoing explanation and feedback. Then we should use critical listening activities to help learners get the practice and understanding needed to form the target language concepts.

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Appendix A.

Rules for the Drunk Snail game: Played in groups of four or five

The object of the game is to find the matching pairs.

- To begin with, shuffle the pack and deal five cards to each student.
- Put the rest of the pack in the middle.
- Players look at their cards to see if they have two cards the same.
- If they do, they have to say what is on the card before showing them to the other players who then must agree that they pronounced it correctly.
- Those two cards are then put to one side.
- Then the same player reads out what is on one of her/his cards.
- The other players then look to see if they have a matching card.
- Any player who has a matching card must read out what is on the card.
- The cards are then shown to confirm that they are the same.
- If they are the same, the cards are put to one side and the initiating (starting) player continues with his or her turn.
- If they are not the same, the player who made the mistake must pick up two cards.
- If no one has a matching card, the initiating player picks up a card and the turn goes to the player on his or her left.
- The winner is the first player with no cards left.